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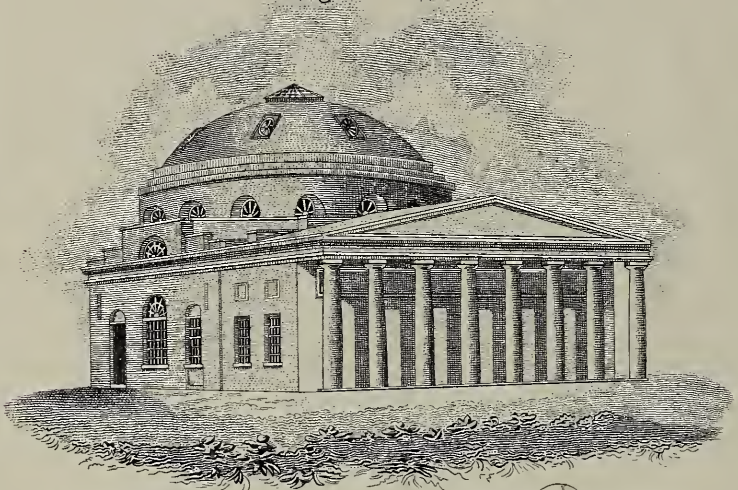

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THE NEBRASKA STATE MEDICAL JOURNAL

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EDITORIAL

MEDICAL PUBLIC RELATIONS

The major part of the sessions of the House of Delegates of the American Medical Association the early part of December centered around discussions of the many phases of medical economics. As would be expected the Wagner-Murray-Dingell bill, President Truman's message to Congress and his recommendation of compulsory health insurance, and Senator Pepper's EMIC bill, all came in for analysis and interpretation. Some idea as to the extent of these discussions may be gained from the fact that the Reference Committee on Legislation and Public Relations was asked to consider more than twenty resolutions on this subject alone.

To the perennial question of the cynic "What good are resolutions?" we hasten the reply that that is the way by which action of the American Medical Association may be implimented. A resolution adopted by the House of Delegates constitutes an expression of the entire membership of the Association, and it then becomes the duty of the Board of Trustees of the Association to put the ideas of the resolution into effect.

In the discussion of these problems, several factors stood out in bold view.

1. Regardless of statements to the contrary by those who seek medical socialization, we are the healthiest nation on the face of the earth.

2. The attempt to attribute draft rejections to inadequate medical care, lacks factual evidence. It is an illogical argument to befuddle and confuse the people of this country.

3. Proposed legislation designed to improve medical care promises nothing but bureaucratic red tape with resulting deterioration of the present quality of care.

4. Reliable Public Opinion polls indicate that:

a. The people of this country have an abiding faith in their doctor individually.

b. The people of this country in the majority feel that the present method of purchasing good medical care is in need of reorganization, and those who have any ideas about what to do generally suggest that the insurance principle could well be employed in this field. While some groups favor the erroneous idea of "free medical care" under government patronage, many prefer group pre-payment systems on a voluntary basis, with ample coverage.

5. The most significant statement emphasized by students of Public Opinion, and a point upon which all these experts are unanimous, is that THE MEDICAL PROFESSION AND THE PUBLIC DO NOT UNDERSTAND EACH OTHER. This dilemma, also unanimously explained by these experts, is due to a lack of appreciation by the physicians of the value of sound public relations. Government, industry, labor, even philanthropy, it is pointed out, all have a definite, and no mean budget which enables them to keep the people aware of the problems of these institutions. Medicine on the other hand, has completely ignored this modern method by which mutual understanding may be achieved to the benefit and satisfaction of both the public and the medical profession.

The items here enumerated have long been recognized by many physicians individually. On a national, state, and local level attention has been called to the necessity of recognizing these social principles and the importance of putting them into effect. We are particularly interested in the discussion of the problem of public relations, and in the remarks made by the public opinion experts regarding the lukewarm attitudes of organized medicine towards the subject in the past. The blame for this indifference is variously placed upon the officers of the American Medical Association, on the House of Delegates, or what is even more illogical, on any individual or group commonly designated by the non-specific but all-inclusive term "They."

Actually however, the few brave leaders who kept on emphasizing the needs for adequate public relations for years were voices in the wilderness not because of strenuous resistance to their cause from "powers" above but rather from a lack of comprehension of the problem by the **rank and file** of the members of the American Medical Association. It is neither to the credit, nor to the discredit of the officers of the Association that the Council on Medical Service and Public Relations did not come into existence before 1943. It took the instruction to the members of the House of Delegates by their State society constituents to establish the medium whereby the people of this country may become acquainted with our problems. The rank and file of physicians, not the mysterious "They," authorized the creation and the maintenance of the Council on Medical Service and Public Relations on a national level.

ABOUT PUBLIC RELATIONS LOCALLY

The appeal for an adequate system of public relations by organized medicine is not new in Nebraska. In fact for more than a decade some of our members served on unofficial, and official committees which were ultimately instrumental in bringing about the formation of the national council. At the present time, however, there is no specific channel within the Nebraska State Medical Association through which problems of mutual interest to the public and the profession can be discussed with a high degree of effectiveness. We are fully aware of the excellent work which has been done in recent years by Dr. E. W. Rowe and his Planning Committee and by other committees in their respective fields. Nevertheless there is a need for a modern system of sustained public relations to be carried out through up-to-date methods by persons specially trained in this type of work.

To some of our members the procedure may appear as a threat to our monetary budget as well as to our professional dignity. On the latter score little is to be feared. A public relations program carefully planned and well administered, far from detracting, actually will enhance medicine in the minds of our people. It will give them the opportunity to know us better. As to straining the treasury, there is no denying that good public relations is an expensive undertaking. The actual cost can be estimated only on the basis of the individual plan sponsored by a given organization. However, no one who realizes the seriousness of the danger we are now facing will argue on the importance of immediate steps to avert the disaster that lies ahead. No cost is too great if it will help retain the freedom of American Medicine.

Some there are who maintain that if people want state medicine, let them have it. The joke will be on them rather than on us. The fact remains that socialization of medicine would be not a joke but a catastrophe for all. The majority of the people don't want state medicine. And those who favor it do so because they do not understand the real significance of the promises made to them by politicians and social uplifters.

Last summer we published an article by Dr. Richard Young of Omaha.* A student of human nature, Dr. Young presented a philosophic, yet realistic discussion on the relationship of the individual physician as well as the medical society, to the community. Every reader of this Journal is urged to re-read this paper at this time. We recommend it particularly to the members of our State Council and to the Delegates of our Association. The chief concern of the physician, Dr. Young makes the observation, is with the ". . . acute threats to life rather than (with) problems of living."

As physicians individually and as members of our Association we are now called upon to broaden our horizon of activity. We must continue our interests in the field of scientific medicine, and at the same time keep the public informed of the problems which present themselves. The people want to know. They want to understand.

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* Concerning Medical Care. This Journal, August, 1945, page 288.

Charles McMartin, M. D.

As your President it was my privilege early in December to represent you at the organization meeting of state presidents and other officers of state medical societies. The meeting was held in Chicago. The California and Michigan State Medical Societies were hosts. Approximately 200 attended. The Sessions centered around a discussion of the various problems on medical economics which we are now facing. One of the most important resolutions adopted by this organization is the formation of a health congress on national state and local levels. It was thought that the securing of interest by groups concerned with the various phases of health would add considerably to the achievement of a better relationship between the medical profession and the public.

You will hear more about this proposed congress and many of you will be called upon to participate actively in its organization in your respective communities. I sincerely trust that you will pay much attention to the problems which are now begging for solution, and that you will consider the prospects confidently and open mindedly. It is only through a sensible interpretation and a broadened viewpoint that physicians and the public will achieve a common meeting ground.

With sincere wishes for a Happy New Year, I remain

Yours sincerely,

CHARLES McMARTIN, M.D.,
President.

CHICAGO MEETINGS

The end of November and the first week of December were marked by several meetings on the economic phases of medicine. The Council on Medical Service and Public Relations of the American Medical Association held its meeting on Friday, November 30 for reports of committees. Much of the discussion centered around medical care prepayment plans and public relations policies to be adopted by local medical societies.

On November 2 the Twenty Presidents organization met and organized itself into a group of State Presidents and Other State Officials of Medical Societies. The organization came into being as a result of thinking on the part of some of the state presidents on matters pertaining to medical economics and ways and means of resisting socialization through an active program devised and executed by collective action of state societies with the aid of the American Medical Association. The first meeting was held in 1944 at which time our then president, Dr. Floyd Rogers, was asked to participate. Dr. Rogers is a charter member of the organization. This year a meeting was held in the Continental Hotel with a comprehensive program as the keynote of activities. About 200 presidents and other state medical society officials attended. One of the major accomplishments was a recommendation for the formation of a health congress on national, state and local levels to which all interested groups are asked to send representatives to study problems of mutual interest.

On Monday the House of Delegates of the AMA convened at the Palmer House; 179 delegates registered for the first meeting. Among the highlights of the meeting was an address by Major General Paul R. Hawley of the Veterans Administration. It was comforting to hear the General outline the plan for improved medical care of veterans of the World War II. One of the prominent defects of the veterans' system of medical care following World War I was the lack of availability of suitable personnel in administration as well as for the actual medical care of the veterans. Well trained physicians shied away from veterans' hospitals for many reasons. The result was admittedly an inferior grade of medical care as compared to the medical service plan for the World War II veteran. Regardless of political pressure from Congressmen, some of whom appeared to be more interested in the vote than in the service to be supplied to veterans, new veterans' hospitals are to be placed in or near communities which afford the best medical talent. This talent will be used by the veterans' hospitals in the form of part time staff attendance, preferably by men certified in their respective specialties. Every effort will be made, General Hawley assured the Delegates, to secure residents of the highest quality to man these hospitals, the attending staff being made up of the physicians and surgeons living in or nearby the community.

The addresses by the Speaker of the House, Dr. H. H. Shoulders, and the President, Dr. Herman L. Kretschmer, were well received. Dr. George R. Minot, whose name is connected with the treatment of pernicious anemia by the administration of liver extract, was voted the Distinguished Service Medal bestowed by the American Medical Association annually for outstanding service in the field of medicine and its various branches.

The installation of the President, Dr. Roger I. Lee, was impressive and the address which he delivered deserves a place in the best medical literature. It is hoped that every member of this Association will read the address; it appears in the Journal of the American Medical Association, December 8, 1945.

Many of the problems which medicine faces were aired thoroughly and, we think, sensibly, on the floor of the House. The major theme was the attempted socialization of medicine and its probable effects upon the people of this nation. Resolution upon resolution was brought in from state medical societies, all having a central theme namely: Time to act is now; the most effective means to counteract the attempts of socialization is for the medical profession to offer something that is better than we have now. Something which will save this country from the first sop toward statism. Prepayment medical care plans sponsored by medical societies seem to be the favorite substitute.

Dr. H. H. Shoulders of Tennessee, formerly Speaker of the House, was elected President-elect, and our own Roy Fouts was chosen to succeed Dr. Shoulders as Speaker in the House of Delegates. Dr. Frank F. Borzell was elected Vice-speaker.

Some Conditions Which May Be Confused With An Anginal Syndrome*

FREDRICK W. NIEHAUS, M.D., F.A.C.P.
Omaha, Nebraska

At present there is a tendency to over-diagnose diseases of the coronary arteries. The laity has always been very fearful of heart disease, especially angina pectoris. This symptom complex and its consequences has been thoroughly publicized, so that at present every ache or pain in the region of the heart is attributed by them to this condition.

As the diagnosis is at times difficult, or even impossible, physicians have contributed to this attitude. One's diagnostic reputation is not particularly enhanced by assuring a patient that he has nothing to worry about, and to hear a short time later that this individual has suddenly died. For this reason, in doubtful cases, physicians frequently "play safe", and express an opinion that the atypical symptoms are more or less due to a cardiac disorder. At times this statement by the physician is accompanied by a marked increase in the patient's symptoms. There is a certain amount of safety in this type of procedure, but far more frequently, if the patient is a bit neurotic, it is disastrous to his mental state.

Experience, it seems to me, justifies the assumption that doubtful syndromes, which bring to mind angina pectoris can in 99% of cases to be considered as non-cardiac. And in this proportion to the benefit of the patient. The physician must be willing to take a small risk in some cases. A careful consideration of these confusing conditions is very important. It is also embarrassing when such a serious diagnosis is made to have a patient later appear exhibiting his excellent state of health when the time element has proven the error in diagnosis. And also after a variable lapse of time a more venturous diagnostician has "stuck his neck out" and refuted the original opinion. The aforementioned situations result in no injury except to pride and reputation. However, to wrongly label a condition as heart disease inflicts a very serious injury to a patient, especially to those who are susceptible to psychic trauma. Many of these are more seriously ill than if they really had organic heart disease. It is to be emphasized that this occurs only in those who are psychically labile and not in those who are mentally stable.

There are several general factors which are important in differentiating the anginal syndrome from conditions simulating it. Of these the time element probably is most helpful. True cardiac pain is of short duration unless due to coronary occlusion. The latter usually is sufficiently characteristic to identify itself. If the suspected angina has existed for several weeks, months, or even years without other evidence of cardiac impairment it can usually be dismissed, and the longer the duration, the more certain that the pain is non-cardiac.

The anginal syndrome certainly is much more common in the age period between fifty-five and sixty-five years of age. There are a few cases earlier in life gradually increasing in number after forty years of age. While there are a few cases under forty years of age, they certainly are rare.

In cases which are difficult to differentiate, the precipitating factors may give a clue. Angina pectoris is usually started by exercise and relieved by rest. It can occur during rest, but then is usually accompanied by other signs of heart disease. Confusing precordial pains originating in the chest wall or shoulder are more common with rest. These pains are usually associated with certain movements, or the pain is definitely related to the motion of a joint or other part.

The intensity and character of the anginal pain is of an overwhelming type which is not simulated by the most severe type of musculo-skeletal origin. This frequently is accompanied by objective signs of agony.

The location of a pain with an anginal syndrome has certain characteristic features. The radiations may be far and wide but it is always related to the substernal area. While confusing pains may have the same radiations and approach it in intensity they have no relation to the substernal region. The apical or left inframammary area(1) is the most common site of pains mimicing angina pectoris. This is particularly true of emotional disturbances. This region was referred to by Crummer as the "poetical location of the heart."

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*From the Cardiac Clinic, Department of Medicine, University of Nebraska College of Medicine. Presented before Sixth Councilor District in Osceola, Nebraska October 8, 1945.

The structures of the neck, thorax and shoulder girdle are the seat of many pains, which may be confused with an anginal syndrome. A spondylitis involving the neck and thoracic spine, may produce a progressive kyphosis with compensatory forward curving of neck which causes nerve root pressure and muscle strain. The resultant posture and pain radiation causes respiratory embarrassment and a deep ache which resembles angina, and in older age groups it may be necessary to consider the co-existence of the two conditions. This is presented in the following case: J. S. No. N5334—Age 44 5/6/40 typical advanced spondylitis involving the thoracic spine. He complained of a deep seated, upper sternal ache, choking sensation and breathlessness. His symptoms were further complicated by a moderate anemia. Heart examination was negative. The arthritic condition was clearly evident as the cause of pain.

Harrison(2) has reported similar cases.

The thoracic wall may be the seat of pain. A herpes zoster before the appearance of vesicles of the 3rd to 7th intercostal nerves, especially on the left side, presents a confusing picture, the true nature revealing itself only after the vesiculation. However, the nerve root pain unaccompanied by an eruption, such as intercostal neuralgia radiculitis, myofascitis, sprains and strains of the ligaments and the muscles of the intercostal spaces, may produce aches and pains along the intercostal spaces, involving or limited to the precordium. The various rheumatic afflictions of the shoulder girdle are particularly prone to produce symptoms suggestive of angina pectoris. Travell(2) et. al., made some important contributions on this subject, showing that zones of referred pain from the serratus posterior superior and the infraspinous muscles closely followed the radiations of angina pectoris. The typical "Painful Shoulder" is chiefly due to myofascitis of the extra articular structures of the shoulder, according to Steinbrocker(3), and subdeltoid bursitis. This produces a very bizarre clinical picture. The onset of this syndrome is at approximately the same age as angina pectoris. It is frequently very difficult to differentiate them. The following may be helpful:

Location:	**Painful shoulder**	**Anginal Syndrome**
	Right shoulder more frequently	Left shoulder more frequently
Inciting factor	Lying on side, movement of shoulder more often at night	With bodily activity, less frequent at rest
Prostration	Absent	Frequently present
Duration	Long, continuous	Shorter, unless coronary artery is occluded
"Trigger points"	Usually can be found	Absent
Effect of nitroglycerine	No relief	Relieves

The "Painful Shoulder" syndrome becomes still more perplexing if it first appears during the convalescence of a coronary thrombosis. The structures of the shoulders may be "frozen" from radiation of anginal pain or possibly from long convalescent inactivity. This syndrome(4) may terminate in marked trophic changes with atrophy, stiffness, spasticity of whole upper extremity, including typical "claw" hand. The recognization of this condition is important, so that (1) measures for treatment of the "frozen shoulder" may be instituted and (2) that restriction of activity for coronary artery disease be not unduly prolonged.

One can recall cases whose distress truly seems to be cardiac, but the findings and the benign course of which do not permit a diagnosis of angina pectoris. While considering somatic myofascitis, one is intrigued with the idea that the myocardium itself may be the seat of a similar disorder, causing aches, but no serious impairment of its function.

Neuro - circulatory - asthenia frequently manifests an anginal syndrome, but its consequences are never fatal. These are due to an asthenic cardiovascular system. This can be differentiated usually by the age factor, occurring chiefly before twenty-five years of age, and other attending features of this condition.

A cardiac neurosis is characterized by tachycardia, palpitation, respiratory difficulty, consisting chiefly of an inability to take a full breath, and precordial pain. The latter is referred to the left inframammary region(1). This is more common in women, especially at the menopause. The onset is gradual and duration with intermissions may last for years. It may radiate to the supramammary region and left shoulder, even with hyperesthesia of skin and tenderness of underlying structures. This is chiefly differentiated by severity, duration and location of pain, and the absence of other signs of heart disease, after years of duration, and the presence of other signs of nervous exhaustion and anxiety state. Formerly this was known as psuedo-angina.

L.B. N8225 Age 39 1/26/45 Precordial steady ache. Dull. May move to corresponding area on right side. Pain not made worse by walking up flight of stairs or lifting half barrel of oil. Not relieved by lying down. At times takes extra deep breath to catch up—even when resting. Nearly fainted while watching wife have teeth extracted, followed by very severe precordial pain lasting several days. Cardiac examination was negative. Psychiatric consultation by Dr. A. E. Bennett: "He is certainly suffering from an emotional illness of many years duration, characterized by a great deal of anxiety reaching the degree of acute panic reaction and a rather marked degree of depression."

Carcinoma of esophagus in non obstructive stage may simulate an anginal pain.

C.A. N5747 3/3/1941 Pain lower sternal region, cramp like; occurs fairly constantly about midnight; radiates laterally. Supposed to have had "heart attack" 1938. No difficulty swallowing.

Roentgenological examination of esophagus and stomach negative. Heart examination negative.

Esophagoscopy refused, but on 6/6/44 was done by D. M. Lierle, M.D., Iowa City. Revealed a fungating mass in the esophagus 25 cm. below the incisors.

Diagnosis: Carcinoma of the esophagus.

The gastrocardiac symptom complex(5) is at times very difficult to differentiate from symptoms of cardiac pain.

Biliary disease may present a perplexing problem. There is some overlapping of the enervation of the upper abdominal organs and the heart. In this way pain may be referred to different dermatomes than the level at which the stimulation originated. In addition distention, nausea and vomiting may embarrass heart action and produce signs of shock. Fortunately biliary disease rarely presents an emergency so that several days observation usually permits differentiation. However, both biliary disease and coronary artery disease, which occur at approximately the same age, are frequently concomitant.

J.E.M. Age 59 N2372 10/14/31 On hunting trip was breathless and had precordial pain. July, 1932, similar attack, diagnosis probable angina pectoris. During following year many similar attacks, but symptoms and signs chiefly referable to gall-bladder. Gall-bladder visualization showed impaired emptying. On 10/31/35 a thickened gall-bladder and four small calculi were removed. Symptom free until 1/17/38, while preparing to retire he suddenly died.

Peptic ulcers usually do not present many features referable to the circulatory system. However, functional upper gastrointestinal disease, especially nervous indigestion with its distention, nausea, etc., causes breathlessness, tachycardia and precordial pain, as described under cardiac neurosis.

SUMMARY

1 Some conditions, which may be confused with an anginal syndrome, cannot be immediately diagnosed.

2 The physician carries a grave responsibility in properly presenting this situation to the patient.

3 "Playing safe" by intimating the possibility of serious heart disorder, may cause great harm in a psychogenic individual.

4 Less harm is done by missing a diagnosis of genuine heart disease, than by inflicting this label on a non cardiac case.

BIBLIOGRAPHY

1. Baker, Doris M.: Cardiac Symptoms in the Neurosis; H. L. Lewis & Co., London, 1942.

2. Harrison, T. R.: Some Puzzling Aspects of Pain in Chest; J.A.M.A., 120:519-25, Oct. 17, 1942.

3. Steinbrocker, Otto: Arthritis in Modern Practice; W. B. Saunders Co., Philadelphia, 1942.

4. Askey, J. W.: The Syndrome of Painful Disability of Shoulder and Hand Complicating Coronary Occlusion; Am. H. J., 22, 1-10, July, 1941.

5. Niehaus, F. W.: Interchangeable Signs and Symptoms between Circulatory and Digestive Systems; Nebr. S. M. J., 20:375-378, Oct., 1935.

ASK DOCTORS' AID IN OFFICE SHORTAGE

To relieve the present shortage of available office space, practicing physicians are urged to share their offices with doctors who are returning from service.

An editorial appearing in the September 29 issue of The Journal of the American Medical Association said: "In large communities, such as cities of over 100,000 population, the problem is apparently far more serious than in the smaller areas. In some larger cities physicians are even remodeling old houses into office space . . . Many a physician whose office is not fully utilized either in the morning or in the afternoon or even in the evening can make available time and space, as well as the use of his own facilities . . . The least that can be done for such veterans is to make available to them an opportunity to begin the earning of a livelihood at the earliest possible moment."

Mediastinal Cysts*

EARL A. CONNOLLY, M.D.,
Omaha, Nebraska

Although only about 220 cysts of the mediastinum have been reported in the literature, they are probably more common, as I have seen two others at Creighton Memorial St. Joseph's Hospital in addition to my two personal cases.

ETIOLOGY

These cysts are congenital, arising from ectodermal rests or misplacements of branchiogenic cells drawn into the thorax by the descent of the diaphragm and heart. They are either dermoids or teratomas.

Dermoids are more cystic and contain only ectodermal elements such as hair, teeth, sebaceous material, and viscid secretions.

Teratomas are more cellular and more prone to malignant change. They arise from more than one germ layer and contain hair, teeth, bone, cartilage, muscle, salivary gland, adrenal gland, etc. They are most frequently encountered in the anterior mediastinum in front of the great vessels and often lie in contact with the pericardium. They are probably present at birth but are slow of growth, and usually remain quiescent for a number of years, rarely giving rise to symptoms before adolescence. It is during the second or third decades that progressive enlargement occurs and pressure symptoms develop.

SYMPTOMS

Dyspnoea, pain, and cough are common symptoms. When they become sufficiently large, pressure symptoms occur; congestion of the neck veins, pain in the sternum, back, and elsewhere, bulging of the thoracic wall, dyspnoea, dysphagia, cough, respiratory congestion, and Horner's syndrome. When cough is present sputum is scanty unless the cyst ruptures into a bronchus in which case hair or grumous material may be expectorated. Once growth has been initiated, the condition progresses, eventually ending fatally unless adequate treatment is employed. In Aurousseau's series as reported by Andrus and Heuer, excluding 10 cases in which the cyst was discovered at autopsy, there were 34 deaths in 34 untreated cases. In Morris' series 7 died in less than one year, 10 died in from 1 to 5 years, and 12 lived more than 12 years.

DIAGNOSIS

Although physical findings of dullness on percussion and decreased or absent breath sounds on auscultation are present, the diagnosis is mainly dependent on x-ray findings. This consists of a circular or oval shadow with clear-cut, well-defined margin, the lateral border extending out into the pulmonary field but the medial border is always connected with the mediastinum. Lateral x-ray films are necessary for localizing the mass in the superior, anterior, or posterior mediastinum.

Neoplasms arising from nerve tissue are usually in the posterior mediastinum. Neurofibromas not infrequently are associated with other signs of neurofibromatosis (Von Recklinghausen's Disease).

DIFFERENTIAL DIAGNOSIS

If aneurysm of the aorta is present, the x-ray findings may be similar to that of a dermoid cyst of the anterior mediastinum. Aneurysm, however, produces expansile pulsation and is usually associated with a positive Wasserman test. Pulsation in a tumor mass may be produced by proximity to the heart or aorta but it is not expansile in character. When located in the left chest, a kymograph may be helpful.

Suspected tumors of the mediastinal lymph nodes (Leukemia, Lymphosarcoma, Hodgkin's Disease) should be given test doses of radiation. In three weeks an appreciable radiosensitivity may be noted.

TREATMENT

If the disease process is discovered in a routine x-ray film without symptoms referable to the chest, the desirability of surgical exploration is open to question. However, when symptoms are present, treatment should not be delayed. It consists in complete extirpation of the lesion. Benign cysts and tumors of the thorax become inoperably malignant in a higher percentage of cases than the mortality percentage for surgical operations. The operative mortality is between 5 and 15%.

Andrus and Heuer reported a cure following in 89.3% with 10.7% mortality. With simple drainage, cures were obtained only in 15% with a mortality of 26.5%. With partial resection, cures occurred in 41% with a mortality of 16.6%.

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*Read before the Omaha-Douglas County Medical Society, September 25, 1945.

CASE HISTORIES

Case No. 1. M. K. White, female, single, age 23, patient of Dr. F. J. S., was admitted to St. Joseph's Hospital on July 16, 1922.

Complaint: One and one-half years ago she had a severe attack of influenza from which she recovered but has had occasional pleuritic pains since. Pain is located at about the tenth rib, a little lateral to the mid-scapular line and radiates up to the anterior part of the chest. The pain comes at intervals of one month and lasts about one-half hour. It is severe and lancinating, not aggravated by deep breathing but she feels easier when the side is held tight. There is some cough and dyspoena, but there are no constitutional symptoms.

Operation: Posterior incision from mid axillary line. A portion of the 7th and 8th rib was removed and a dermoid tumor found. Her referring physician thought it inadvisable to attempt removal, so drainage was instituted. She returned to hospital on July 16, 1924. She had lost 20 pounds. The wound was still draining. Operative procedure failed to obliterate the fistulous tract. She was again seen May 29, 1928. Because of continuous foul discharge, patient has been irrigating cavity for four years, twice daily, with weak Mercurochrome solution. On May 29, 1928; November 10, 1928; March 27, 1930; April 19, 1930, and Nov. 24, 1930 further unsuccessful operations for obliteration of the fistulous tract were done. Patient states that whenever the wound fails to drain, she has fever, malaise, constipation, and poor appetite.

X-ray report at Mercy Hospital, Council Bluffs, Iowa, on Febr. 3, 1931, was as follows: Heart is normal, except evidence of pleuro-pericardial adhesions. Thorax—Old resection of right 5th, 6th, 7th and 8th ribs near axillary line. Marked concave defect in body contour at right costo-phrenic angle. Cavity formed by old operation had filled with thickened, fibrous ridges of pleura. A dead space lies at the right costo-phrenic angle and above this a dense consolidation is noted, which should be examined frequently for a localization of fluid. Do not believe an accessible quantity of surgical fluid is present at this time. Signed—Dr. Hawkins.

On Sept. 11, 1932, she was operated on for gangrenous appendicitis by a surgeon at Mercy Hospital. Died from peritonitis. No autopsy was performed but from history has had no drainage since operation in November of 1930.

Case No. 2. L. B. (white, male, married, age 48), machinist helper for Union Pacific Railroad Company, case of Dr. J. D. B., entered St. Joseph's Hospital on June 8, 1943, and expired on June 14, 1943.

History: In September of 1942 while working in a cold rain, he contracted a severe cold. Although he went to doctors, he continued to have chills and fever with pain in the chest, especially on the right side. He worked until Oct. 7th when he became too weak to work. He went to Kansas City where he was in the hospital for five weeks, then came to Omaha. Cough has been much worse in last two months and pain in right chest has increased. Sputum is white and frothy, average of one pint of sputum in 24 hours. For awhile he raised an average of one quart a day. He has had headaches for past two months which he thinks are due to his coughing. There is also soreness in back of neck which began six weeks ago. Right chest has been aspirated 4 times in last 6 months, getting from eight ounces to one quart of bloody fluid each time. 7e has lost 25 pounds in six months. There is shortness of breath on exertion.

Examination: Blood pressure was 128/70. Hb. 93%; R.B.C. 4,690,000; W.B.C. 7,550; Basophiles 2%; Monocytes 1%; Lymphocytes 27%; Neutrophiles 70%, Staff 12%, Segment 58%. Acid-fast bacilli found in sputum. No elevation of temperature while in hospital from June 8-14.

X-ray report, June 9, 1943. Chest, by Dr. James F. Kelly: There is a large mass filling the lower two-thirds of the right lung field. It is circular in shape, even in density, and has a sharp border—probably a solid neoplasm or cyst. The appearance of the mass is essentially the same as on films taken on May 21, 1943 at Kansas City.

Operative Findings: Cystic tumor with a thick wall about the size of a football filling most of the right thoracic cavity and either densely adherent or arising from the interlobar pleura, parietal pleura, mediastinal pleura, or pericardium. Cyst contained dark bloody fluid. Section—thick-walled, numerous small cavities in the wall, rough necrotic lining.

Patient died of hemorrhage and operative shock.

Case No. 3. W. F. N., white, male, age 8, entered St. Joseph's Hospital on Febr. 26, 1935, complaining of frequent colds, shortness of breath, and bulging of the right chest wall.

History: He was apparently well until 14 months ago when he got "real sick." At that time he developed a cough and fever and was forced to sit up to breathe. Since then this has recurred several times, lasting about a week each time. During this time he noticed that one side of his chest was larger than the other.

Examination: Febr. 27, 1935. Deformity of chest, right chest wall bulges near sternum between 2nd and 7th ribs. There are dullness and decreased breath sounds and marked dyspnoea. Urine was negative. Hb. 72%; R.B.C. 4,750,000; W.B.C. 6,650; Lymphocytes 36%; Monocytes 9%; Eosinophiles 2%; Basophiles 2%; Neutrophiles 51%, Staff 6%, Seg. 45%. Blood Wasserman was negative.

X-ray of chest on February 21, 1935—The right lung field shows a large area of increased density, even in character with a smooth border, the inner side of which is lost in the mediastinal shadow and the outer describes a semi-circle about the size of a large cantaloupe. This area of density lies against the anterior chest wall with some clear lung tissue below, outside above, and posteriorly. It may be encapsulated fluid or pus or a solid tumor mass. There is no evidence of any active inflammatory change at the border or in the other chest viscera. Signed—J. F. Kelly, M.D.

On February 28, 1935, aspiration of right chest of 40 c.c. of dark fluid pus with flakes of fibrin. Culture of fluid from right lung — no organism found. On March 4, 1935, aspiration of 500 c.c. of brown fluid with flakes of fibrin. As the needle was withdrawn three hairs came with it. X-ray of chest on March 4, 1935—Shadow is smaller than on last examination but not to any great extent and there is a fluid level across the middle and upper third of the tumor mass.

Operation: March 8, 1935. Incision over the 4th rib anteriorly. Six inches of the rib was removed beginning at the sternum, fifth rib was cut through at the sternal end. There was a large mass occupying about one-half of the right pleural space. It was very adherent to the parietal pleura and arising from the mediastinum in the region of the great vessels. To facilitate removal, a suction tube was introduced into the tumor mass. The tumor was removed by blunt and sharp dissection. The cavity remaining was then lightly packed with gauze.

Pathological Report by Dr. B. C. Russum: A roughly ovoid structure approximately 11 cm. long, 7 cm. up and down, and 6 cm. front to back. The surface is covered with a capsule which is roughened in places from adhesions to surrounding structures. The sac has been opened on its anterior surface. On section the mass is solid and contains some scattered cysts up to 2 cm. in diameter with gelatinous or clear or cheesy contents containing a little hair. At one end of the section there is a well-formed suprarenal gland which has been split in two in making the section. Near the other end of the specimen there is the outline of the head, neck, and part of the shaft of a long bone, although it is not calcified. Elsewhere there is cartilage. In one of the small cavities in the cyst there is material resembling a lens. In sections from different parts of the mass bronchial tissue, skin, salivary gland, and adrenal gland are recognized. Diagnosis — mediastinal teratoma. Signed — B. C. Russum, M.D.

Patient made an uneventful recovery. All symptoms promptly disappeared. He played football in high school and is now overseas in the U. S. Navy.

Case No. 4. D. L. D., white, male, single, age 20, entered St. Joseph's Hospital on May 21, 1945, and was dismissed on June 25, 1945.

Examination: This young man complained of shortness of breath on exertion. There is no pain in the chest. In 1943, when called for the U. S. Army, he was rejected because of some pathology in the left chest. He was told it was probably a nerve tumor.

X-ray of chest on May 23, 1945, by Dr. James F. Kelly: Increased density in upper left lung field, apparently projects outward from the left hilus—looks like a solid tumor. It has a smooth outer rounded border which blends with the heart shadow. Lateral chest—The lateral view of the chest shows the mass projecting into the left lung field to lie anteriorly and may be associated with the heart and great vessels. The posterior mediastinum is clear. Fluoroscopy—The mass is in the left lung field along the left anterior border of the heart. It pulsates but appears to be a transmitted pulsation.

Laboratory Findings: May 23, 1945. Urine was negative. Hb. 94%; R.B.C. 4,680,000; W.B.C. 7,550; Eosinophiles 1%; Lymphocytes 26%; Neutrophiles 68%; Staff 21%, Segment 47%. Blood Wasserman was negative.

Consultation on May 23, 1945. Patient is very tall, hypogonad type. Penis is well-developed, testicles are very small. The heart is apparently normal in size, rhythm normal. There is a moderately loud systolic murmur which is heard best in the pulmonic area when the patient is recumbent and heard best in the aortic area when the patient is upright. There is no associated thrill and exercise seems to decrease the intensity of the murmur rather than accentuate it. There is dullness in the upper left first, second, and third interspace. After examining x-ray films, confirm diagnosis and advise operation. Signed—R. L. Traynor, M.D.

Operation: May 28, 1945. There was a dermoid cyst about the size of a softball which was adherent to the lung and arose from the anterior mediastinum and pericardium. Transverse incision between third and fourth ribs from sternum to anterior axillary line. Third and fourth ribs were severed at sternal end. Tumor was separated from lung by sharp dissection. The dermoid cyst was opened and some of the contents were removed to facilitate removal. It was dissected from the pericardium by blunt and sharp dissection. 40,000 un. of penicillin and 5 grm. of sulfanilamide were placed in the pleural cavity. Two penrose drains were used.

Satisfactory convalescence. Sterile pleural effusion, aspirated twice, wound healed promptly and he returned to work symptom-free.

Examination of heart on Sept. 20, 1945: Heart is normal in size on percussion. Apex beat is in the 5th interspace within the mid-clavicular line. Rhythm is regular, no murmur.

Electrocardiograph on Sept. 19, 1945: Rate: Auricular—83; Ventricular 83. Intervals: P-R 0.16; Q-R-S 0.08. Graphic Interpretation: Essentially normal.

BLOOD VESSEL RUPTURE IN BRAIN LESS FATAL WITH IMMEDIATE SURGERY

The threat of recurrent hemorrhage and death in approximately 70 per cent of all patients with subarachnoid hemorrhage, a rupture of small blood vessels in the brain, could be removed if it were possible to treat patients effectively and safely by surgery during the first two weeks after the hemorrhage, according to a study reported in the November 10 issue of The Journal of the American Medical Association.

George A. Wolf, Jr., M.D.; Helen Goodell, B.S., and Harold G. Wolff, M.D., New York, wrote that "29 per cent of patients who enter the hospital with subarachnoid hemorrhage die during the first episode of bleeding; 14 per cent die during recurrent bleeding between the second and the fourth week after the initial hemorrhage, and an additional 5 per cent die by the end of the first year."

The authors, who studied 46 patients with subarachnoid hemorrhage at the New York Hospital, said the symptoms included "sudden violent headache, dizziness and vertigo, vomiting, drowsiness, stupor and coma, stiff neck and pain in the back of the thighs and legs, tightness of these areas, sweats and chills."

The investigators concluded from their studies that if patients survived the first year they had a good chance of a relatively long survival, "but the threat of repeated hemorrhage is always present."

As a person grows older his ears become less sharp, with greatest fading in the high, shrill range of sounds, according to the Sonotone research laboratories.

The Treatment of Major Burns in Naval Warfare*

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Major thermal burns have been responsible for many of the most serious casualties encountered in naval warfare during World War II. Carriers forming the major striking force of the fleet have of necessity a great fire hazard and this has not diminished as the Japanese have employed their suicide attack squadrons in the Pacific. It is natural that all advances in the therapy of critically burned personnel are of primary importance in naval medicine and on combatant ships much of this new work is given its first large scale clinical trial.

In a combat zone all casualties aboard fighting ships must be taken care of by a ship's medical staff with the equipment at hand. A period of days or weeks may elapse before patients may be transferred to a hospital ship or a shore based institution with its additional facilities. The maximum care and skilled supervision is necessary during this initial period if critically burned patients are to survive. Since a large number of casualties often occur in a given action, treatment must be realistic, employing those methods of proven value and making constant effort to increase the simplicity of therapy.

All surgeons have gradually become more interested in burn therapy during the past twenty years. Beginning with the introduction of the tannic acid treatment by Davidson in 1926, there followed a period of years in which the local treatment of burned areas was exhaustively studied. In addition to tannic acid, use was made of saline baths, saline compresses, paraffin wax, dyes in various combinations, oils and antiseptics of different types and tannic acid-silver nitrate with a gradual reduction in the reported mortality. It soon became apparent that the care of the burned surface was but a part of the problem confronting the surgeon in the treatment of these patients. Subsequently much investigative work has been carried out on the pathology and abnormal physiology of the severely burned. There can be no doubt that the constantly improved results now being obtained are not alone due to improved local treatment, but also through a greater appreciation of the problem presented by the patient as a whole and constant alert care utilizing all the recent advances in therapy.

The basic requirements in the successful treatment of a major burn may be briefly stated: (1) control the pain and prevent or overcome shock (2) limit contamination and cover the burned surface and (3) prevent infection, maintain nutrition and hasten complete healing of the affected surface at the earliest possible time before contractures develop.

CONTROL OF PAIN AND SHOCK

The relief of pain is one of the essential requirements for the control of shock. The pain resulting from a severe burn is agonizing and requires the prompt administration of adequate amounts of morphine. In naval practice the usual initial dose is one-half grain. This is customarily given at the earliest possible moment and its administration is facilitated by having morphine syrettes on the persons of all hospital corpsmen and medical officers. Only in rare instances need one hesitate to give such a dosage in young adults. If cyanosis with respiratory difficulty is noted on the initial examination it is well to limit the morphine to one-quarter grain, repeating as necessary. Furthermore, one must remember that patients who are already in deep shock when first seen or who have been exposed to abnormally low environmental temperatures after being injured do not absorb at the normal rate morphine administered subcutaneously or intramuscularly. Repeating the initial dose because prompt sedation is not obtained may result in over-sedation with alarming respiratory depression when the patient is warmed and begins to recover from shock. In such conditions the judicious administration of morphine intravenously is the safest procedure since its effect will then be immediately apparent. After the control of pain the next most important step in combating shock in burned personnel is by the administration of adequate fluid.

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*'This article has been released for publication by the Division of Publications of the Bureau of Medicine and Surgery of the United Statees Navy. The opinions and views set forth are those of the author and are not to be construed as reflecting the policies of the Navy Department.'

In Cope's classification the fluid compartments of the body requiring treatment in shock are: (1) blood volume (2) tissue volume, especially extra-cellular tissue volume and (3) fluid available to maintain adequate urinary output. In a severe burn (30% or more of the body surface), 2,000 cc will be required to correct a decrease in blood volume, 6,000 to 10,000 cc for extra-cellular tissue volume replacing fluid lost through burned surfaces and local tissue edema from the injury and a minimum of 1,500 cc daily for urinary output. Thus the total volume of fluid which must be supplied during the first 48 critical hours will vary from 8,000 to 15,000 cc, depending upon the surface area involved.

During the first few hours after an extensive burn the excessive loss of fluid from the circulating blood produces a transitory rise in the plasma proteins. This initial dehydration, accompanied by a rise in the hemoglobin, seems partially due to the passage of fluid from the blood into the tissues, as it occurs when there is no marked external loss of fluid by vomiting and sweating. Subsequently when the seepage of plasma from the burned surfaces becomes established there is a fall in both the volume and the protein concentration of the plasma, with a decrease in recorded plasma proteins and a rising hemoglobin. Warren, Merrill and Stead have demonstrated experimentally in shock that the decrease in blood volume incident to plasma protein loss bears an inverse relationship to changes in the interstitial fluid: that is, blood volume loss tends to decrease as interstitial fluids increase.

In the control of shock the surgeon has available four types of fluid—plasma, human serum albumin, electrolyte solutions and whole blood. Each of these is important and increasing knowledge has demonstrated that a judicial use of all gives the maximum results.

(1) Plasma. The use of blood plasma in the treatment of shock in major burns has been the greatest single advance in burn therapy during recent years. Innumerable lives have been saved during this war by prompt replacement of the large quantities of plasma lost into the tissues and through seepage from the burned surface and by restoring the diminished blood plasma proteins. Aboard all naval vessels plasma is carried in large quantities in the dried form and this can be put into solution, ready for administration, in five minutes time. The stability of the product, its instant availability without cross-matching and the low incidence of reactions has made it a priceless aid in the treatment of these casualties. In 1,000 plasma infusions Newhouser and Lozner recorded reactions in 1.1%, none being of a true hemolytic type. Localized or generalized urticaria, readily responding to adrenalin, was noted in an additional 1%. A total of seven plasma reactions have been witnessed by the author in thirty months of military practice. None of these were unusually severe and all promptly responded with discontinuance of the infusion and conservative measures. Generalized urticaria has been observed only once.

The prompt administration of plasma in adequate amounts during the first twenty-four hours is essential. Numerous rules or formulae have been offered to compute the necessary dosage and several of the more simple ones are listed. Since some of these formulae are dependent upon skin surface area in percentage, Berkow's scale is useful: lower extremities and buttocks 38%, trunk 38%, upper extremities 18% and head 6%.

(a) 100 cc of Plasma during the first 24 hours for every 1% of body surface burned, up to four or five liters.

(b) 700 cc during the first 24 hours for each estimated 10% of the body surface burned.

(c) 100 cc of Plasma for each point the hematocrit is above 45.

(d) 50 cc for each point the hemoglobin is above 100%.

There can be no hard and fast rule for plasma dosage in a severe burn. Those cases with from 25-50% body surface involvement will require from 2,500 to 5,000 cc of plasma during the first 24 hour period and will require approximately half of this amount on the second day. The general condition of the patient, the blood pressure, red cell count, hemoglobin and hematocrit values will determine the effectiveness of the therapy.

(2) Human Serum Albumin. The concentration of plasma in a standard Army-Navy package, containing 25 grams of human serum albumin in 100 cc of diluent, has proven very useful in certain cases of major burns. Human serum albumin is not a complete substitute for blood plasma since it supplies only protein mainly responsible for the maintenance of osmotic pressure and does not contain the prothrombin, complement and antibody contained in the globulin fraction. Its extreme hypertonicity is used to draw upon water-logged tissues and to increase the blood volume. It must never be given in true dehydration unless accompanied by additional intravenous fluids and should be administered at a rate not exceeding 5 cc per minute. Its very small bulk and efficiency in restoring blood volume in the presence of excessive tissue hydration have made it useful in the early treatment of selected burn cases.

(3) Electrolyte Solutions. Until 1943 the administration of normal saline solution to burned patients was held to a minimum since it was felt that more sodium chloride in the presence of water-logged tissues would only result in salt retention and an increase in tissue edema. Glucose in distilled water was then considered the fluid of choice when the plasma requirements had been met.

Rosenthal early in 1943 demonstrated in experimental animals that sodium chloride by mouth or intraperitoneally caused a significant reduction in the mortality of experimental burns uniformly fatal in 48 hours. Intravenous sodium chloride was slightly less effective. The sodium ion was shown to be the effective one in these studies since sodium acetate, succinate, bicarbonate and lactate were equally effective. Isotonic glucose by mouth had little value while potassium chloride and hypertonic glucose hastened death in these experimental animals. Following the administration of sodium chloride by mouth or intraperitoneally, the sodium content of the skin, muscle, bone, liver and plasma were increased many times above normal.

To explain these results Rosenthal advanced the hypothesis that there is liberated in burned patients a substance similar to histamine which may produce a sodium deficiency. From comparative studies using plasma it was found that the beneficial results were seemingly proportionate to the sodium content of the plasma. Animals treated with sodium chloride appeared ill and their protein and hematocrit values were definitely abnormal and yet they recovered.

Prinzmetal and Hirschfield and Smith have confirmed the work of Rosenthal in experimental animals, demonstrating the effectiveness of sodium chloride by mouth or intra-peritoneally in the prevention of shock associated with burns.

Fox reporting to the Sub-committee on Burns of the National Research Council reviewed his results in a series of cases of severe burns treated with isotonic sodium lactate solutions. From five to eleven liters of sodium lactate were given to each in the first 24 hours, only one patient receiving any plasma. Chemical studies showed that in spite of large amounts of sodium lactate given, only a small quantity of sodium was excreted in the urine after 14 days, and chloride excretion was also delayed. Hypoproteinemia developed but the patients seemed to get along clinically as well as those who received plasma.

On the basis of this promising experimental work it is now suggested that isotonic sodium chloride or sodium lactate solution be given by mouth to severely burned patients in amounts ranging from three to eight liters during the first 24 hour period and from three to five liters during the second 24 hour period. These solutions are given in addition to the daily computed plasma requirements during this period. The sodium lactate solution will be better tolerated because of less gastro-intestinal irritation. When these electrolyte solutions cannot be taken by mouth they should be given intravenously in amounts equal to the volume of plasma administered during the first 48 hours. Hartmann's solution is probably the fluid of choice since when given readily it controls any acidosis which may develop. When the urinary output has been established at 1,500 to 2,000 cc per day, we may assume that adequate fluids are being administered.

It is to be remembered that, on the basis of present information, sodium chloride and sodium lactate are not substitutes for plasma and maximum results will only be obtained by administering both in adequate amounts. However, in the absence of adequate plasma in an emergency, large quantities of electrolyte solutions may be lifesaving until plasma becomes available. After the initial 48 hour period the intake of large quantities of fluid and salt must be rapidly decreased to forestall the development of edema with no corresponding increase in urinary output.

(4) **Whole Blood.** It was formerly thought that whole blood had no place in the early treatment of the severely burned because of the frequent presence of hemoconcentration. It is now felt that with adequate initial hydration of these patients a daily transfusion of whole blood to supplement the plasma and electrolyte solutions is distinctly advantageous during the first 48 hours of therapy. Hirschfield and Smith showed that in dogs with 35-40% body burns, the anemia invariably seen during convalescence could be prevented by the early prompt administration of whole blood and electrolyte solutions. When such therapy was used the hematocrit readings were no higher than in dogs not treated with plasma.

The administration of large quantities of whole blood is essential to combat both anemia and hypoproteinemia in the later care of the severely burned. Taylor et al have demonstrated that, following major burns, individuals excrete urinary nitrogen in daily amounts up to 45 grams, appearing in the form of polypeptides and resultant from tissue destruction. Thompson, Ravdin, and Frank in 1938 demonstrated that hypoproteinemia severely interferes with fibroplasia and thus markedly delays healing. Accordingly, this loss must be replaced by a combination of high protein foods, serum albumin, plasma, whole blood and vitamins.

THE CARE OF THE BURNED AREA

In the care of any fresh burned surface one is dealing with a large open wound which initially may be considered sterile. Meleney states that without definite care infection will develop in from 10-15% of all open clean wounds and the source of the contamination is usually airborne. Whipple has listed the basic principles in the treatment of any open wound as follows: (a) put the injured part at rest; (b) prevent secondary contamination; (c) avoid trauma through repeated dressings.

No local treatment of burns previously suggested has met all of these requirements as completely as has the use of pressure dressings advocated by Koch during recent years. The advantages of the pressure dressing were early demonstrated in the Coconut Grove Fire and with certain minor modifications have been generally adopted in Naval Medicine with the approval of the Bureau of Medicine and Surgery.

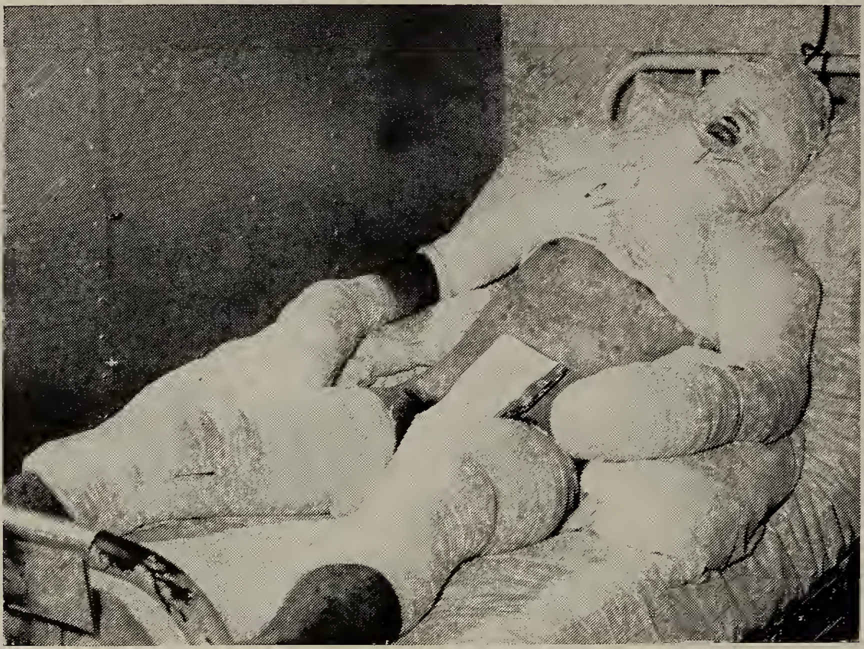

Fig. 1. Pressure dressings applied in a 35% surface burn involving face, neck, chest, upper and lower extremities. In this instance the eyes have been covered because of eyelid burns.

Experience in the management of multiple burned casualties has led us to have available in large quantities the following materials for burn dressings:

(a) Petrolatum impregnated gauze bandages (44 mesh) in one, two, and three inch sizes and eight inch gauze rolls. These are prepared by immersing the bandages in boiling petrolatum for a period of 20 minutes which insures thorough impregnation of the entire roll. Boric acid is to be avoided because of its toxic effects from absorption into the brain, liver, and fatty tissue, after prolonged application. Carefully controlled studies have demonstrated that no form of local application to thermic burns is superior in any respect to U. S. P. Petrolatum. These prepared gauze rolls are stored in sterile jars and kept readily available. With these it is possible to cover the burned surface of an extensive lesion in a much shorter time than when individual gauze strips are used.

(b) Washed white mechanics waste, wrapped in a heavy muslin covering, is packed in bundles approximating the size of a basket-ball and sterilized by autoclaving.

(c) Rolls of cellu-cotton are wrapped in muslin and sterilized ready for use.

(d) An adequate supply of gauze, flannel and ace bandages in various sizes.

(e) Stockinette in different sizes.

In our early experience with burned casualties aboard ship, the element of contamination soon presented itself as a major factor to be overcome. Since most burns in naval warfare occur while a ship is under attack and tightly 'buttoned up' at general quarters, all initial therapy must be given in the nearest battle dressing stations until the patient may be moved to the sick bay for definitive treatment. An hour or two may elapse before this is possible and during this period contamination inevitably occurs. Accordingly in every battle dressing station large sterile burn drapes were made available including one full sized sterile sheet and twelve sterile burn dressings 4 by 1.5 feet in size, made of crash-towelling. Battle dressing station personnel were instructed that on receipt of a burned casualty, one-half grain of Morphine was to be given immediately in the absence of respiratory embarrassment, the clothing removed, the burned area wrapped with suitable sterile drapes to completely cover the involved area and no local medication applied. If the casualty could not be moved immediately, he was to receive at once fifty percent of the estimated plasma required for the first 24 hours while awaiting transfer to the sick bay.

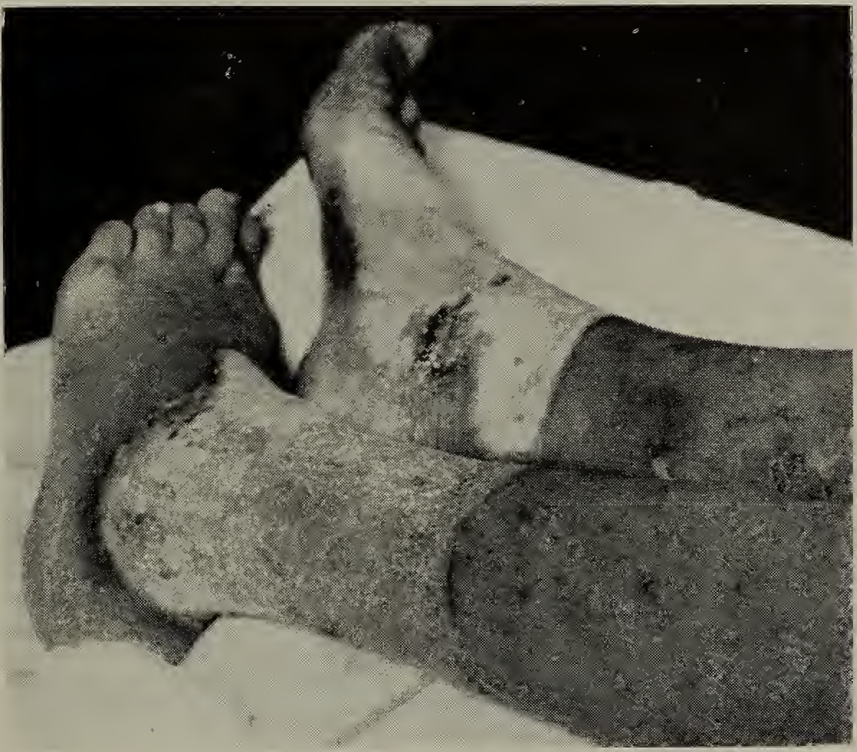

Fig. 2. Second degree burns of both ankles resultant from not wearing socks. These burns were entirely healed when first pressure dressings removed at 16 days. Small unhealed areas produced by shell fragments.

These sterile drapes have proven very satisfactory in preventing excessive contamination from soiled decks, blankets, stretchers, etc. If the casualty has been immersed in fuel oil, no effort is made to remove this in the battle dressing station, but this is done on arrival in the sick bay, using lard, petrolatum, or mild soap and water.

As soon as practicable, one group of corpsmen under supervision proceed with the application of the pressure dressings. It has been repeatedly observed that the pain of a severe burn (over 30%) is difficult to control with Morphine alone, but practically ceases with the proper application of a firm pressure dressing. All personnel are masked and wear sterile gloves. The original burn drapes are removed and a very limited debridement is carried out. In the absence of contamination by fuel oil, the burned surface is gently irrigated with sterile saline solution, but it is not scrubbed with soap and water unless grossly contaminated with foreign matter. Blisters are not opened but all loose tags of skin are clipped away. The burned surfaces are then covered or wrapped with the prepared petrolatum rolls using the various sizes for different locations. Care must be exercised in applying these rolls that they are not too tight. The fingers and toes are individually wrapped with one inch rolls and the eight inch gauze petrolatum rolls have been found most useful and timesaving for extensive burns of the trunk. The petrolatum dressing is covered with several layers of sterile gauze over which a generous layer of fluffed waste or cellulo-cotton is applied. For an extremity, sheets of cellulo-cotton greatly facilitate application of the dressing, while waste lends itself for those areas about the groin, axillae, neck and face. The waste is held in place by a few turns of gauze bandage over which ace bandages are firmly applied to maintain pressure. It is important that the waste be evenly distributed and the pressure from the superimposed bandages be on an even tension. The recent suggestion that stockinette be substituted for the ace bandages is one of merit, giving evenly distributed pressure and making a better looking dressing.

This pressure dressing once applied is left undisturbed for from 10-18 days unless there arises some definite reason demanding inspection of the wound. It is amazing to see the real comfort that such a dressing gives these patients almost immediately after its application. In removing the necessity for further manipulation of the burned surface, subsequent care is greatly lessened and full attention to the patient's general condition is permitted.

The employment of plaster casts for the maintenance of pressure in place of elastic bandages has recently been reported with excellent results. We have had no experience with this modification, but such a dressing, where technically feasible, seemingly fulfils the essential requirements, provides excellent splinting and should be the dressing of choice in burns associated with fractures.

Burns of the face lend themselves admirably to treatment with pressure dressings, the entire surface area being covered excepting the mouth, nostrils and in certain cases, the eyes. It has been found from experience that when the eyelids are involved, the patient is more comfortable if these are covered by generous pressure dressings, since the associated edema prevents the patient from seeing if these be treated by an open method. When the eyes themselves have been burned, access to these may be demanded for repeated medication. Any bland oil, such as castor, olive or cod liver oil gives relief in these superficial burns. Anaesthetic ointments are at times required to control pain.

Burns of the genitalia and perineum are best treated by continuous saline packs.

On completion of the pressure dressing an individual schedule is set up for each patient covering the remaining plasma and fluid requirements for the first and second 24 hour periods. Saline or lactate solution is offered by mouth and pushed, if tolerated, up to three or four liters. If gastro-intestinal symptoms are present Hartmann's solution or normal saline are administered by vein in amounts equal to the daily plasma requirements. Morphine is given as necessary and all patients receive a booster of Tetanus Toxoid or 3,000 Units of anti-tetanic serum, if not previously immunized.

A technical difficulty not anticipated was encountered in the administration of plasma to a series of serious and extensive burn casualties. Four men were received with second degree involvement of all extremities, the anterior chest, neck and face. Each of these had received 600 cc of plasma before their arrival in the sick bay where sterile pressure dressings were immediately applied. In two of these men the long saphenous vein in the ankle was then exposed, but the pressure applied along the vein above this point prohibited the flow of plasma until the pressure dressings had been loosened. In the other two individuals the saphenous, anti-cubital and cervical veins were all inaccessible, and the sternal route was also covered by the pressure dressings. In these men the penile veins were used in one, and the vascular sinuses of the penis in the other, although neither of these routes is satisfactory for the prolonged administration of intravenous fluids. In such cases there are three alternatives: (1) One may expose the area of the sternum and even though this area shows a second degree burn, administer plasma by this route. (2) All the pressure dressings may be applied excepting to one lower extremity and on this limb the ace bandages are not applied until the plasma requirements have been administered, subsequently loosening the elastic bandage for each infusion. (3) Plasma may be given directly into the femoral vein in the groin. The latter method is simply performed using a 3 inch spinal needle which is vertically introduced into the femoral vein lying just medial to the artery. When the needle has been demonstrated to be in the vein, it is firmly held by a hemostat which is clamped to the needle parallel with the skin and the infusion given. Subsequent injections can be given by the same technique as long as necessary.

THE PREVENTION OF INFECTION

The hazards of gross infection in burn wounds are greatly reduced by the early limitation of contamination, the prompt application of sterile wound covers, masking of personnel, and limited debridement with irrigation of the wounds before the application of the definitive pressure dressings. As further aids we have available the sulfa compounds and penicillin.

Sulfathiazole and Sulfadiazine incorporated in an ointment base have been extensively used on burned surfaces beneath pressure dressings. In burns in which definitive treatment of the wound has been delayed for a period of some hours such dressings undoubtedly have some merit. However, the concensus of opinion at present is that the sulfa compounds are more advantageously given for their systemic effect. When sulfa drugs are employed they should be started as soon as practicable with an initial dose of two grams and continued in one gram doses at four hour intervals until the danger of gross infection has passed. When not tolerated by mouth the intramuscular route has proven entirely safe and satisfactory in our hands, using a 25% solution of either sodium sulfadiazine or sodium sulfathiazole at four or six hour intervals in appropriate dosage. Recently we have made routine use of penicillin administered intramuscularly rather than the sulfa compounds with very satisfactory results. A total of 100,000 Units are given each twenty-four hour period until the temperature has been normal for two days. If a given ampoule of 100,000 Units is dissolved in 8 cc of sterile water and 8 cc of 1% Novocaine, administration is simplified since 2 cc of this solution given intramuscularly at three hour intervals gives the daily required amount. The addition of the Novocaine makes the injections practically painless, yet has no effect upon the potency of the penicillin. Recent studies using penicillin in oils, beeswax, and glucose solutions suggests that we may soon be able to administer the daily requirements of this medication in a single intramuscular injection.

AFTER CARE OF THE BURNED PATIENT

Because of the marked nitrogenous loss in the severely burned, a high protein, high carbohydrate diet with adequate vitamins is essential as soon as it can be tolerated. We have employed a concentrated liquid feeding containing cocoa, powdered milk, eggs, simple syrup and cod liver oil as the initial feeding, substituting solid foods as soon as possible. Since healing is definitely dependent upon the maintenance of nutrition, too much emphasis cannot be placed upon the importance of an adequate food intake.

During this period whole blood transfusions are repeatedly given along with plasma when necessary to increase the protein intake.

In the absence of clinical evidence of sepsis, the initial dressings are removed in 10 to 18 days. These re-dressments are always done under aseptic conditions in the operating room and the unhealed lesions are immediately redressed with a second pressure dressing. Much of the area is often healed and dry at the first dressing, but those areas which are deeply burned with destruction of the entire skin require skin grafting at an early date. These are carried out as soon as possible to prevent the inevitable contractures which occur with excessive scar tissue formation.

Areas which have lost all of their epithelial elements and show infection are prepared by the usual methods for the application of grafts. The separation of sloughing skin and underlying tissue has always been a slow process in these infected burns and various types of antiseptic solutions and proteolytic enzymes have been employed to hasten this process. Harvey and his co-workers at Yale have recently reported the local use of 8% pyruvic acid in corn starch for this purpose in experimental burns with excellent results. While pyruvic acid is not at present available for general use, the experimental results have been very encouraging and it is hoped that some such aid may be forthcoming to assist in this difficult problem.

COMPLICATIONS

The usual complications encountered in the care of the severely burned are familiar to all who are called upon to treat these patients. We have on two occasions observed a delayed type of pulmonary complication worthy of consideration because it is not well understood. It has been repeatedly observed that patients who sustain from 60 to 100% second or third degree burns may early develop an overwhelming pulmonary congestion and succumb in a very short period in spite of all supportive therapy.

Two patients were brought to sick bay with almost identical second degree burns involving the face, head, upper extremities and chest, estimated at 35% surface involvement. Both were treated with adequate plasma, pressure dressings, penicillin and fluids by mouth, although in neither instance was sodium chloride or lactate given in the amounts recently suggested. The course in both cases was entirely satisfactory until the fifth day when suddenly pulmonary edema developed associated with a marked tachycardia and a temperature of 105 degrees and above. In the first case the frothy fluid expectorated was blood tinged and it was our impression that we were perhaps dealing with an overwhelming pulmonary infection. Sodium Sulfadiazine (5 Grams) was slowly given intravenously in addition to the penicillin. The patient's circulation rapidly failed, the pulmonary congestion became more marked with deep cyanosis and he died three hours after the first appearance of the pulmonary signs. No post-mortem was possible.

The second patient suddenly developed an identical picture on the fifth day except that the expectorated fluid was not blood tinged. When seen a few moments after the beginning of the respiratory difficulty, the patient's breathing was audible across the sick bay and he was deeply cyanotic. The pulse was almost imperceptible, rate 120, the blood pressure was 70/0, and the temperature was 106. No chill accompanied this episode. Atropine grains 1/50th was given intramuscularly and repeated two hours later. A catheter was introduced into the trachea and after sucking out a large quantity of clear frothy fluid, intranasal oxygen was begun and given continuously. The patient's color gradually improved, but the circulatory failure presented a therapeutic problem. A careful recalculation of the plasma dosage showed that this was in no way excessive. The hemoglobin was 90%, the red cell count was 4 million, and the hematocrit on repeated checks showed a cell volume of 40%. Fearful of increasing the pulmonary edema by the further administration of fluids to support the failing circulation, a conservative course was elected. Oxygen was given continuously for 48 hours, occasionally clearing the trachea by suction. The hyperpyrexia, which reached 106.6 degrees, was combatted by draping all skin surfaces not covered by pressure dressings with towels soaked in ice water and the giving of several cool enemas. The patient was wildly irrational and constantly required restraint in spite of sedation. No fluid by vein was administered for a period of 48 hours and during this time only a small amount was taken orally. At the end of 36 hours the temperature began to fall, the pulse volume increased while the rate dropped and the blood pressure returned to 100/60. The cyanosis was brought under control, evidence of pulmonary congestion disappeared and within 4 days the patient had entirely recovered from this episode. Subsequent convalescence was without incident.

No adequate explanation for this phenomenon is offered. In discussion with other medical officers of the Pacific Fleet it is noteworthy that this same symptom complex, usually terminating promptly in death, has been observed by others. Unfortunately it is impossible to obtain more detailed blood chemistry studies on such subjects when seen aboard ship in a combat zone. Autopsy studies are for the same reason impracticable. We were somewhat encouraged by the result obtained in the one case which survived and it seems likely that in the future they can best be handled by a similar form of therapy until more information is available.

CONCLUSIONS

An effort has been made to consider the principles which govern the treatment of the severely burned, together with a review of some of the recent advances in therapy. The methods employed in the treatment of these casualties on combatant ships is discussed in detail since they are applicable to any community with hospital facilities in which one does not have available a completely equipped modern laboratory.

NOTE

A recent clinical and pathological study by Walker and Shankin (Ann. Surg., March, 1945) contributes evidence that burned patients who succumb with acute respiratory arrest after the first 48 hours uniformly show extensive organic brain pathology. They believe these deaths are brought about by damage to the central nervous system due to toxemia with failure of the medullary centers, the result of compression, edema and cellular lesions.

* * *

IN THIS ISSUE

THE anginal syndrome frequently is confused with conditions that are far removed from cardiac physiology. We offer a brief but comprehensive discussion on the evaluation of the syndrome by Dr. Frederick W. Niehaus, Associate Professor of Medicine, University of Nebraska College of Medicine. It is on page.......... 5

AN interesting paper on mediastinal cysts was presented last fall before the Omaha-Douglas County Medical Society by Dr. Earl A. Connolly, Associate Professor of Surgery at Creighton University School of Medicine. It is presented on page.... 8

WE realize that the war is over; at the same time we hope that the casualties connected with naval warfare are never repeated. Burns resulting from naval warfare were many. The results of treatment of these major casualties will go down in history as one of the most outstanding achievements in American medicine and surgery. How these wonderful results were brought about you may learn by reading an excellent presentation by Dr. McLaughlin, recently retired as Commander in the U. S. Naval Reserve. See page.......... 11

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THE PLATFORM OF THE AMERICAN MEDICAL ASSOCIATION

The American Medical Association advocates:

1. The establishment of an agency of federal government under which shall be coordinated and administered all medical and health functions of the federal government exclusive of those of the Army and Navy.
2. The allotment of such funds as the Congress may make available to any state in actual need for the prevention of disease, the promotion of health and the care of the sick on proof of such need.
3. The principle that the care of the public health and the provision of medical service to the sick is primarily a local responsibility.
4. The development of a mechanism for meeting the needs of expansion of preventive medical services with local determination of needs and local control of administration.
5. The extension of medical care for the indigent and the medically indigent with local determination of needs and local control of administration.
6. In the extension of medical services to all the people, the utmost utilization of qualified medical and hospital facilities already established.
7. The continued development of the private practice of medicine, subject to such changes as may be necessary to maintain the quality of medical services and to increase their availability.
8. Expansion of public health and medical services consistent with the American system of democracy.

ANNOUNCEMENTS

The Annual Sessions of the Nebraska State Medical Association will be held the first week in May in Lincoln.

Last Call for Papers. The program for the Annual Sessions is now being arranged, and no papers will be accepted after February 1, 1946. If you wish to read a paper at the 1946 Sessions, send your title to Dr. R. B. Adams, 416 Federal Securities Bldg., Lincoln, at once.

Dues are due January 1. Send your check to your local secretary.

The American College of Physicians will resume its Annual Meetings in 1946 and has now definitely chosen Philadelphia, May 13-17, inclusive. Headquarters will be at the Philadelphia Municipal Auditorium, 34th Street below Spruce.

The Meeting will be conducted under the Presidency of Dr. Ernest E. Irons, Chicago, Illinois, and the General Chairmanship of Dr. George Morris Piersol, Philadelphia, Pennsylvania.

CONGRESS ON MEDICAL EDUCATION

The Council on Medical Education and Hospitals has announced that the Annual Congress on Medical Education and Licensure will be held at the Palmer House in Chicago on February 11 and 12. The session will deal primarily with reconversion problems, including the continuation education of physician veterans, the relocation of physicians and the transition to a peacetime educational program in medical education.

A.M.A. BROADCASTS RESUMED DEC. 15

A dramatized radio health program, "Doctors at Home," will be resumed over the national network of NBC and associated stations on December 15, according to the November 17 issue of The Journal of the American Medical Association. The Journal said:

"Beginning Saturday, December 15 at 4 p.m. Eastern Standard Time (3 p.m. Central Standard Time, 2 p.m. Mountain Standard Time, 1 p.m. Pacific Standard Time) the American Medical Association will resume its nationwide dramatized radio health programs on the network of the National Broadcasting Company and associated stations. The broadcasts will run for twenty-six weeks.

"The title for the network broadcasts will be 'Doctors at Home,' which will represent the sixth consecutive year of broadcasting under the general title 'Doctors at Work,' which was modified during the war years to 'Doctors at War' and 'Doctors Look Ahead.' 'Doctors at Home' will deal, as its title indicates, with the return of doctors from the war and their reabsorption and readjustment into life at home. Going back to the 'Doctors at Work' formula, the programs will be in story form, continuous from week to week. The fictitious doctor who was the hero of 'Doctors at Work' (Dr. Tom Riggs, who was several times mistaken for a real doctor instead of a radio character) will return from his military service and will resume his practice in a typical American town. Listeners will meet again Dr. Riggs's wife Alice and child, the rest of the Riggs family and their friends.

"The fictitious story of Dr. Riggs will be used as a vehicle for dealing with modern medical advances such as new developments in drugs, advances in surgery, anesthesia, obstetrics and other branches of medicine. There will be a constructive attack on the problem of scarcity of physicians. How to choose a doctor, what to do until the doctor comes and other practical phases in health education will be part of the program."

The Chicago Medical Society Annual Clinical Conference will be held at the Palmer House, Chicago, March 5, 6, 7 and 8, 1946. The program committee has invited outstanding members of the Medical profession to present papers of general interest to all the profession. The space in the Exhibition Hall has been completely allotted to a carefully selected group of Technical Exhibitors and the Committee on Scientific Exhibits is busy processing the large number of applications submitted for presentation at this meeting. These plans assure the success of this the first major general meeting in Chicago since the cessation of hostilities.

AMERICAN BOARD OF OPHTHALMOLOGY

Due to transportation difficulties the examination of the Board, originally scheduled for Los Angeles, January 28th to 31st has been changed to San Francisco, June 22nd to 25th, inclusive, 1946.

1946 Examinations: Chicago, January 18th through 22nd; New York, April, approximately 10th through 13th; San Francisco, June 22nd through 25th; Chicago, October 9th through 12th.

List of Surgery: A new ruling requires that previously accepted candidates mail their lists of surgery to the Board office at least sixty days prior to their examination. All new applicants are now required to send their list with application.

NEBRASKA STATE NURSES' ASSOCIATION

The Nebraska State Nurses' Association established on November 1, 1945 a Counseling and Placement Service in affiliation with the American Nurses' Association.

The objectives of the service are to:

A. Give professional, educational and personal Counseling and Placement to Registered nurses both civilians and veterans, and to any one interested in nursing as a career.

B. Foster desirable nursing service from a qualitative as well as a quantitative point of view by helping develop more equitable distribution of nursing service and satisfied personnel.

Since there are at present many more positions open than there are nurses available, it will not be possible in the immediate future to fill all requests for nurses. However, employers of nurses are invited to send their needs to the Counseling and Placement Service so that the nurses seeking employment may be placed as satisfactorily as possible according to their qualifications and interests.

The Counseling and Placement Service is available to employers, nurses, and prospective nurses throughout the state of Nebraska. The Counselor will make trips about the state as often as possible. Appointments may be made with her in advance.

Needs of employers and applications for positions will be referred, upon request, to the national office if it is not possible to fill them locally.

Further information and forms for both employers and applicants may be secured from Mrs. Alice Schaefer, Counselor, Counseling and Placement Service, 340 Electric Building, Omaha, Nebraska. Realizing the needs of the public for qualified nursing, the Nebraska State Nurses' Association is offering this service to employers and nurses without charge. Telephone ATlantic 1827.

NEWS and VIEWS

According to recent press reports, $109,500 will be available for control of venereal disease in Nebraska for the fiscal year ending June 30, 1946. Whether the clinics in Lincoln and Omaha would be conducted by the state or Rapid Treatment Center in Omaha is uncertain. Its appropriation by the U.S.P.H.S. expires in July, 1946.

The largest class of the nation's medical coeds is at the University of Illinois College of Medicine. It is reported that 36 young women are enrolled in the freshman class.

The following item was taken from the Omaha World-Herald under date of November 25:

Representative Miller called the Army Medical Corps' record in World War II "outstanding" in remarks inserted in the Congressional Record Saturday.

Only six of every 10 thousand Army men died of disease annually, compared with 167 in the last war and 712 in the Union Army during the Civil War, he said.

The disease rate was lower than for civilians in similar age groups in this country, in spite of the fact that men served in many areas where health factors such as climate and sanitation were bad, Representative Miller said.

The pneumonia death rate among soldiers dropped from 24 per cent in World War I to six-tenths of 1 per cent, and the meningitis death rate from 34 to 4 per cent.

Of more than 570 thousand men who were wounded, 360 thousand returned to some kind of duty.

HOSPITAL NEWS

ALBION: The county hospital project of Albion is making progress. Late in November the committee presented a petition to the county commissioners asking for an election to vote on the hospital proposal. More than 200 voters in the county signed the petition.

ALLIANCE: St. Joseph's Hospital recently underwent an extensive improvement program. Many of the rooms were redecorated; a new entrance of heavy white block stone and plate glass archway was completed. Alterations were made in the operating rooms and the adjacent scrub rooms, and a new operating table and sinks were put in. It is estimated that the office space of the hospital was increased by 30%.

BURWELL: The citizens group of Burwell met on November 22, and together with the village board a campaign to raise funds for a hospital is being planned. It is contemplated to acquire a 20-bed hospital with facilities for expansion should the need arise. It is estimated that $40,000 will be raised by general contributions.

CENTRAL CITY: According to press reports, Hord Memorial Hospital is confronted by an emergency in which the services of registered nurses are needed critically.

DAVID CITY: A new electric elevator, ramp and electric sterilizer, purchased through contributions of David City people, were installed recently at the David City hospital. These items, badly needed for many years, were made possible by a drive for contributions sponsored by the David City Commercial club.

COLUMBUS: St. Mary's Hospital has completed installation of a bright new Pediatrics Department, the first time since establishment of the institution, that separate accommodations have been available for the care of children. Composed of two separate rooms, each with three cribs and three bassinets, the department is equipped with glass cubicles and the windows have special safety screens to prevent possible mishaps among older children in the division. Walls are in light pink and blue, with nursery topic decals added as decorations. Each room contains electric incubators and vaporizers.

OMAHA: The Veterans Hospital site is still a matter of guess. Newspaper reports indicate that the Field Club site is receiving first choice by the Veterans Administration.

OMAHA: The Children's Memorial Hospital has renewed its campaign for funds. According to newspaper reports, the Board of Trustees is hopeful of securing amounts sufficient to begin construction and operation of the hospital in the near future. Donations are coming in from many parts of Nebraska and surrounding states. The plans for construction are completed and from what we understand, as soon as materials become available, building of the hospital will commence. The hospital will be located on the grounds west of the University Hospital. We understand, too, that the bed capacity as is now planned will be 80, and that the hospital will be fully equipped to act as children's hospital unit including the various specialty services.

Craig Morris, D.D.S., was elected president of the Provident Hospital Association at a recent meeting. Other officers elected were: D. W. Gooden, M.D., first vice president; S. B. Northcross, M.D., second vice president; Wesley Jones, M.D., third vice president; A. L. Hawkins, M.D., secretary, and Herbert Wiggins, M.D., treasurer. A campaign for funds to build Provident Hospital will soon begin.

Plaster of Paris Technique in the Treatment of Fractures and Other Injuries, by T. B. Quigley, Lt. Col., Medical Corps, Army of the United States; Instructor in Surgery, Harvard Medical School (in absentia); Junior Associate in Surgery, Peter Bent Brigham Hospital, Boston (in absentia). 107 pages including index, with 103 illustrations. Publication date Sept. 18, 1945. Price $3.50. The Macmillan Company, 60 Fifth Avenue, New York, N. Y.

WOMAN'S AUXILIARY

President—Mrs. A. D. Brown
Central City, Nebr.
President-elect—Mrs. E. S. Wegner.
Lincoln, Nebr.
Secretary—Mrs. E. E. Farnsworth
Grand Island, Nebr.
Treasurer—Mrs. J. G. Woodin
Grand Island, Nebr.
Publicity Chairman—Mrs. M. E. Grier
4922 Ames Ave., Omaha, Nebr.

THE BULLETIN, official news organ of the Auxiliary is $1.00 per year. It affords valuable information for both State and County Auxiliaries and should be in the hands of every doctor's wife. Mrs. Adolph Sachs, 5211 Underwood Ave., Omaha, State Chairman.

Mrs. A. D. Brown, Central City, Nebr., President of Woman's Auxiliary to the Nebraska State Medical Association, and Mrs. E. S. Wegner, President-elect, of 2416 Sewell St., Lincoln, Nebr., attended the Fall Board meeting of the Woman's Auxiliary to the A.M.A. in Chicago, Dec. 5th and 6th, held at the Knickerbocker Hotel.

NOTICE TO OFFICERS OF WOMAN'S AUXILIARY

We wish to make a correction in Mrs. E. S. Wegner's address on the Auxiliary letterheads. It should read 2416 Sewell St.

COUNCIL ON MEDICAL SERVICE AND PUBLIC RELATIONS, A.M.A.

The wide range of subjects covered by the first Public Relations Conference of the Council on Medical Service and Public Relations at Chicago in October is shown by the following summary of recommendations.

These recommendations will be considered by the Council for presentation in the form of resolutions to the House of Delegates of the American Medical Association which meets December 3 to 6.

ROUND TABLE ON LEGISLATION—Moderator, James R. McVay, M.D.

Committee appointed to bring in recommendations: Dr. F. S. Crockett (Indiana); Dr. James McLeod (South Carolina); Dr. S. J. McClendon (California). The opening and development of the Washington Office was highly commended and its further expansion and continued financial support recommended.

It was further recommended that each state association be invited to appoint a special national legislative committee to work with the Council and the Washington Office. The Council was requested to bring a resolution along these lines and in accordance with the suggestions made to the coming meeting of the House of Delegates.

ROUND TABLE ON THE EMIC PROGRAM—Moderator, Thomas A. McGoldrick, M.D.

Committee appointed: Dr. Thomas A. McGoldrick (New York); Dr. R. D. Bernard (Iowa); Dr. H. H. Skinner (Washington).

The Conference unanimously disapproved the present EMIC bill, S. 1318, and called upon the members of the entire medical profession for personal disapproval. It was recommended that any program of the Children's Bureau be administered through the state medical associations; that the present Advisory and Steering Committee to the Children's Bureau be replaced with a committee consisting of one representative from each state medical association and such other medical organizations as have direct interest in the functions of the Bureau; that the Children's Bureau be transferred to the Federal Security Agency until such time as all health and medical activities are segregated into a single department; that state medical associations have some say in the expenditure of any funds appropriated by Congress for health and medical services; that the American Medical Association take action to bring these resolutions to the proper authorities for action and that every Congressman be personally apprised of the defects and dangers of this bill.

ROUND TABLE ON THE PUBLIC RELATIONS JOB—Moderator, John H. Fitzgibbon, M.D.

Committee: Dr. A. S. Bristow (Missouri); Mr. Theodore Wiprud (District of Columbia); Dr. Morris Fishbein (American Medical Associaton).

No specific resolutions or recommendations were presented. The round table agreed on the importance of establishing two types of public relations separately, one within the medical profession itself and one concerned with the relations of medicine to the public.

Public relations within the profession was emphasized as a necessary preliminary to public relations with the public and the A.M.A. was urged to intensify this program. It was pointed out that this was particularly true of current medical economic problems and new technics for public relations were discussed at some length.

Among the technics and proposals discussed for public relations to the public were: "The Committee on Community Health," "Radio," "The Press," "Motion Pictures, "Special Exhibits." The programs of various state medical societies were presented and discussed. In concluding their report, the committee urged that the Board of Trustees of the American Medical Association give special consideration to the extent to which such public relations services be utilized by the Association. The committee called attention to the fact that it is now generally recognized that the relations of the individual physician to the individual patient are on a substantially sound basis and that antagonism of the public toward organized medicine seems to rest on a basis that the opponents of organized medicine offer and promise complete medical care on what seems to be a relatively small outlay whereas the American medical profession has not yet come forth with a specific program on a nationwide basis. In concluding the committee pointed out that the task of public relations will be rendered much easier if those concerned could be put in possession of a constructive program which they could promote to the public rather than in a position of a continuous defense of programs coming from other sources.

ROUND TABLE ON THE PLACEMENT OF MEDICAL OFFICERS — Moderator, Harold C. Lueth, M.D.

Committee: Dr. Harold C. Lueth (Illinois); Dr. Creighton Barker (Connecticut); Mr. Charles Nelson (Ohio); Mr. Dick Graham (Oklahoma); and Mr. R. R. Rosell(Minnesota).

The committee recommended that the A.M.A. request the Procurement and Assignment Service and the Navy, Army and the Public Health Service to ascertain at the earliest practicable time the future policy relating to the deferment of medical officers to serve in residencies.

With respect to the G. I. Bill of Rights it was recommended that all discharged medical officers be given terminal leave pay at the termination of their active duty and prior to the expiration of such accrued leave as they may have thus enabling them to immediately participate in the benefits of the bill.

It was also recommended that the Bureau of Information of the A.M.A. be established in permanent form to provide information on each physician in the United States, possible locations for physicians, and of physicians who desire change in location.

It was urged that each state establish an information service to collect facts and information so as to be in the position to supply data concerning areas in need of physicians and concerning the complete picture of medical facilities in operation and needed within the state.

It was recommended that the Council on Medical Education and Hospitals be urged to set up at once a method for the more prompt approval of hospitals for residencies and consider the advisability of providing some temporary approval system.

ROUND TABLE ON PREPAYMENT MEDICAL CARE—Moderator, A. W. Adson, M.D.

Committee: Dr. W. P. Callahan (Kansas); Dr. J. W. Howard (Connecticut); and Dr. James McLeod (South Carolina).

Voicing the opinion that six per cent of the total population covered by voluntary prepayment plans is insufficient and the hope that a nation-wide plan would assist materially in raising this percentage, the committee recommended a meeting of representatives from the forty-eight states to be held November 30 and December 1 in Chicago. At this meeting the representatives of the states were urged to go thoroughly into the problem and it was recommended that the delegates to this meeting consider the formation of a nucleus for the development of a nation-wide plan in correlation with the plans now operating and to assist those states which do not have plans. Doctor Adson was authorized to act as chairman and call the proposed meeting.

ROUND TABLE ON RURAL HEALTH — Moderator, F. S. Crockett, M.D.

The round table on rural health did not present recommendations or resolutions. It was the considered opinion of this group that the work on rural medical service is so new that no fixed opinions could be given as to what must be done or as to the needs. The cooperation of all of the states and more active interest in the problem was urged.

A resume of the talk of Major General Paul R. Hawley, Medical Director of the Veterans' Administration will be sent you later, and the interpretation of the Fourteen Point Program by Dr. Louis H. Bauer will appear in The Journal of the American Medical Association.

The round table recommendations on the Fourteen Point Program are so comprehensive that it will be necessary to deal with them in a separate News Letter.

PREPAYMENT MEDICAL CARE PLANS

ON THE WAY—

Numbers Four and Nine of the Fourteen Point Program called for the development in or extension to all localities of voluntary sickness insurance plans and a continuous study of such plans. To activate these points the Council on October 18 authorized the formation of a Prepayment Medical Care Advisory Committee.

AS A STARTER—

Dr. E. J. McCormick has started the Committee off with the following appointments:

Dr. Jay Ketchum, Director, Michigan Medical Service, Detroit.

Dr. Frank I. Feierabend, Secretary, Surgical Care, Inc., Kansas City, Missouri.

Dr. Norman M. Scott, Medical Director, Medical-Surgical Plan of New Jersey.

Dr. F. E. Elliott, Medical Director, United Medical Service, New York.

Mr. Edwin Kingery, Director, Iowa Medical Service.

Mr. Ralph W. Neill, Director, Washington State Medical Bureau.

Mr. Thomas A. Hendricks, Secretary, Council on Medical Service and Public Relations.

Mr. George W. Cooley, Assistant to Mr. Hendricks.

WHAT NEXT—

Doctor McCormick has asked for early action by the Committee with the suggestion that it recommend in detail the best method or methods for approaching the problem of "How to bring some semblance of order to the present prepayment medical care situation." The Committee is authorized to: Study the present status of plans, suggest the best method of gathering continuous and factual data on plans, direct the analysis of such data, furnish assistance to medical societies interested in starting or altering plans, and coordinate the program generally.

THE LATEST ON PLANS—

Alabama: The Alabama State Medical Association has turned to the Hospital Service Association (Blue Cross) of Alabama for medical-surgical coverage. The state laws were amended to enable the Hospital Service Corporation to provide medical and surgical contracts for its subscribers. The contracts provide an indemnity only and include in-patient medical care—($2.00 per day for twenty-five days)—the usual surgical procedures, and a number of additional in-hospital services not usually found in other plan contracts.

Arizona: The governor of Arizona signed a bill on October 3, 1945—duly passed by the State Legislature—entitled "The Arizona Nonprofit Hospital and Medical Service Corporation Law."

This enabling act provides that the corporation or corporations formed under the act may sell either hospital or medical service contracts or both. The act seems to provide for service contracts only, with no provisions for cash indemnity payments.

Florida: The State Legislature has passed an enabling act similar to that of Arizona.

Illinois: Enabling act passed on July 22, 1945. A committee under the chairmanship of Dr. C. H. Phifer is now studying proposals.

Kansas: Enabling act passed in March of this year. A statewide plan has been prepared and is at present in the hands of the Insurance Commissioner. The new organization will be called "The Kansas Physicians Service."

Maryland: A plan has been drawn up and passed by the Maryland Legislature. The details are now in the hands of Dr. Victor F. Cullen, State Sanatorium, Maryland.

Oklahoma: The Oklahoma Physicians Service, a mutual corporation, started operations on June 1, 1945. It was organized and financed by the Oklahoma State Medical Association with cooperation by the Oklahoma Blue Cross Plan. There are fifteen trustees, of whom nine are doctors.

The Plan offers a straight surgical and obstetrical contract with no medical provisions or riders. Premiums are $.75 for the employee, $1.50 a month for the employee and one dependent, and $2.00 for the family. The contract is rather limited in that any disease, injury, or deformity, either physical or mental, . . ., which existed prior to or at the time of application is not covered. The total maximum benefits in any one contract year are: $300 for the individual, $600 for two persons, and $1,000 for the family. The Oklahoma Blue Cross is handling the details of selling and administration.

Virginia: The Virginia Medical Service Association, approved by the Virginia State Medical Society, is governed by a Board of thirty-five persons of whom not less than two-thirds must be medical men. All administrative procedures are handled by the Blue Cross (Virginia Hospital Service Association). It is a combination indemnity-service plan with income limits for the latter set at $2,000, $2,500 and $3,000.

The contract offered is more inclusive than that of most plans. It is a single medical-surgical contract with no riders. The medical coverage is limited to in-hospital cases of three days or more duration and pays up to thirty-five days per year. Rest cures, observation cases, and check ups are not covered.

The surgical part of the contract is in-hospital only. A twelve month waiting period is required for: conditions being treated or for which correction was advised within one year prior to enrollment; hernias and elective surgery; tonsil and adenoid operations; and tuberculosis and mental conditions. A sum not to exceed $10 per year is paid toward diagnostic x-ray.

Washington: The Washington State Medical Bureau has been instructed to prepare a statewide contract suitable to cover such organizations as the grange, small farmer groups, and business concerns which operate over a wide territory. Consideration will be given to the necessity for a broader contract, for income limitations, and to the eligibility requirements for such groups.

The Bureau was reorganized in April of this year to coordinate the various local Medical Service Corporations operating in this State. Mr. Ralph W. Neill is the Bureau Manager and Dr. John F. Christensen, the President.

New York: The House of Delegates of the Medical Society of the State of New York adopted a resolution on October 9 urging the organization of a national casualty company to develop voluntary medical-insurance coverage in areas where none exist and to enroll nationwide employers' groups.

Tentative plans call for a stock company owned and controlled by the medical profession. The company would assist medical society-sponsored plans through national enrollment of nationwide concerns. It would provide coverage in areas where it is not available and remain only until such time as the profession could set up its own plan. Hospital coverage would be offered through Blue Cross.

The Blue Cross Hospital Groups are already operating a plan along this same line. However, instead of a new corporation, a central enrollment office has been organized with headquarters in New York. This office will service all eighty-seven Blue Cross Plans and merely act as agent for them.

BILLS IN CONGRESS

Since our last bulletin was issued, certain very important announcements have been made in Washington. The President has sent his health message to Congress. Senator Wagner and Congressman Dingell have revised their health insurance bills. The World War Veterans Committee of the House has drafted a new bill authorizing the creation of a Department of Medicine and Surgery in the Veterans Administration.

S. 1271 by Mr. Johnston of South Carolina (for himself and Mr. Ball), July 16. A Bill to provide for cooperation with State agencies administering labor laws in establishing and maintaining safe and proper working conditions in industry and in the preparation, promulgation, and enforcement of regulations to control industrial health hazards. Referred to the Committee on Education and Labor.

Comment: Concurrent with H.R. 525 (reported in Bulletin No. 7).

S. 1606 by Mr. Wagner of New York, November 19. A Bill to provide for a national health program. Referred to the Committee on Education and Labor.

Comment: This bill is in large measure simply a portion of S. 1050.

H.R. 4425 by Mr. Traynor of Delaware, October 18. A Bill to provide for the prompt discharge or release from active duty of certain physicians, dentists, and veterinarians serving in the armed forces. Referred to the Committee on Military Affairs.

H.R. 4454 by Mr. Gossett of Texas, October 19. A Bill to promote the progress of science; to secure the national defense; to advance the national health, prosperity, and welfare;

and for other purposes. Referred to the Committee on Interstate and Foreign Commerce.

H.R. 4502 by Mr. Neely of West Virginia, October 25. A Bill to authorize and request the President to undertake to mobilize at some convenient place in the U. S. an adequate number of the world's outstanding experts, and coordinate and utilize their services in a supreme endeavor to discover means of curing and preventing cancer. Referred to the Committee on Foreign Affairs.

Comment: An appropriation of $100,000 is authorized to enable the President to carry out the provisions of the bill.

H.R. 4512 by Mr. Priest of Tennessee, October 29. A Bill to amend the Public Health Service Act to provide for research relating to psychiatric disorders and to aid in the development of more effective methods of prevention, diagnosis, and treatment of such disorders, and for other purposes. Referred to the Committee on Interstate and Foreign Commerce.

Comment: This is a substitute for H.R. 2550 (reported in Bulletin No. 11).

H.R. 4679 by Mr. Hedrick of West Virginia, November 14. A Bill to provide compensation for veterans of World War II who have had pulmonary tuberculosis. Referred to the Committee on World War Veterans' Legislation.

H.R. 4717 by Mr. Rankin of Mississippi, November 16. A Bill to establish a Department of Medicine and Surgery in the Veterans' Administration. Referred to the Committee on World War Veterans' Legislation.

Comment: The bill has been reported out by the Committee under special ruling secured through House Resolution 401 and is to be acted upon after limited debate. It abolishes the present system of medical service in the Veterans' Administration in favor of a new system outlined in the bill. The new system is to include the Office of the Chief Medical Director, Medical Service, Dental Service, Nursing Service, and Auxiliary Service. The Office of the Chief Medical Director shall include one Chief Medical Director at a salary of $12,000 a year, a Deputy Medical Director at $11,500, eight Assistant Medical Directors at $11,000 each, a Director of Nursing Service at $8,000, and others.

Conditions of eligibility for appointments are specifically defined. Provision is made for the establishment of a special medical advisory group composed of members of the allied scientific professions nominated by the Chief Medical Director.

We shall be glad to send copies of this bill upon request to any who are interested.

H.R. 4730 by Mr. Dingell of Michigan, November 19. A Bill to provide for a national health program. Referred to the Committee on Interstate and Foreign Commerce.

Comment: This bill is in large measure simply a portion of H.R. 3293.

ACTION ON BILLS

S. 191 reported in Bulletin No. 9. The Senate Committee on Education and Labor has reported the amended S. 191, Hospital Construction Bill, and has recommended that it be passed. Report No. 674.

S. 715 reported in Bulletin No. 12. On November 12 the Committee on Naval Affairs reported on S. 715, providing more efficient dental care for Navy personnel, without amendment. It has been placed on the Consent Calendar.

S. 1297 reported in Bulletin No. 17. Hearings have been completed on the Scientific Foundation bills and the Committee is said to be drafting a substitute bill coordinating the three bills, S. 1297, S. 1285 and S. 1248.

H.R. 2550 reported in Bulletin No. 11. This Neuropsychiatric bill, with amendments was reported favorably on October 26 by the House Interstate Commerce subcommittee to the Full Committee. On October 29, H.R. 4512 (reported in this bulletin) was introduced as a substitute bill and is now ready to be considered by the Full Committee.

H.R. 2716 reported in Bulletin No. 13. On September 24 H.R. 2716, providing health programs for Government employees, passed the House and was reported out by the Senate Committee on Civil Service on November 15.

H.R. 4070 reported in Bulletin No. 19. The House Committee on Rivers and Harbors began hearings on the water-pollution bills on November 13 and these hearings are continuing. H.R. 519 and H.R. 587 (both reported in Bulletin No. 7) are included in the hearings.

H.R. 4225 reported in Bulletin No. 20. The World War Veterans Legislation Committee has introduced a new bill, H.R. 5717 (reported in this bulletin), establishing a Department of Medicine and Surgery in the Veterans Administration, as a substitute for H.R. 4225, and it has been placed on the Union Calendar.

OFFICE OF THE SURGEON GENERAL

ALL BUT 11,000 DOCTORS TO BE RELEASED BY NEXT JUNE

Army doctors are being released faster than the Army is reducing its total strength, in spite of the large number of battle casualties still remaining in hospitals and the requirement of doctors for separation center work, according to Major General Norman T. Kirk, Surgeon General of the Army, who spoke recently in New York in appreciation of the services rendered by member hospitals of the United Hospital Fund of New York.

"The peculiar situation that we find our selves in is that demobilization, in which everyone is concerned, cannot proceed without the help of thousands of doctors—2,000 of whom are devoting their medical services solely to separation centers," General Kirk said. "By the first of January more than 14,000 doctors will have been returned to civilian life, which is more than one-third of the total number of doctors comprising the Army Medical Corps at its peak. By June of next year we anticipate releasing all but 11,000 doctors."

General Kirk, stating the peak hospital load in the United States to be 318,000, pointed out that there is still a need for medical personnel and that "one of our greatest problems is to hold enough doctors in the service to give the maximum medical care to our patients."

"I want to assure you," General Kirk concluded, "that, first, the Army Medical Department is going to continue to give to the sick and wounded soldiers of this war the best medical care known to science, and secondly, that it is going to return to civilian life as rapidly as possible every Medical Department officer whose services are not essential to the Army."

ARMY SPECIALIZED TRAINING PROGRAM TO BE LIQUIDATED

Medical students now in the Army Specialized Training Program, which is undergoing gradual liquidation, will continue training through the current fiscal year, ending June 30, 1945, with the future of the program depending upon requirements for medical officers, which will be reconsidered at that time, according to an announcement by the War Department.

ARMY DOCTORS MAKE OVER ONE MILLION PHYSICAL EXAMINATIONS DURING OCTOBER

Over 1,250,000 physical examinations of Army officers and soldiers being demobilized in the United States were completed by Army doctors during October, according to Major General Norman T. Kirk, the Surgeon General.

The two thousand Army doctors assigned to separation centers alone completed examinations of 757,433 men during this period. In addition, Army doctors are assigned to other separation offices.

It is the policy of the Army, General Kirk said, to see that every man being released from the service is given the ultimate medical care before returning to civilian life. In addition, he pointed out, in order to speed demobilization, the complete physical examination has been so planned that the average soldier is processed by eight different doctors in one hour from the time the first doctor sees him, provided he has no ailment.

In this chain of medical examination he is looked over by a dentist, eye specialist, ear, nose and throat specialist, orthopedist, surgeon, urologist, and internist. Finally an overall medical officer, who has before him the reports of all preceding examinations, including all x-rays and laboratory tests, with the exception of serology, determines his physical condition. If it is necessary the man is referred to a ninth doctor—a psychiatrist.

GENERAL MacARTHUR PAYS TRIBUTE TO MEDICAL SERVICES

General Douglas MacArthur, in an article in a recent issue of The Journal of Military Medicine in the Pacific, made the following remarks concerning the part played by the medical services in World War II:

"War through the ages has demanded in large degree the help of those who practice the art of healing. Never has such need been greater than in the Pacific. Early in the campaign disease presented its most serious threats. Vigorous action has eliminated much of that hazard. The application of old principles and newly devised measures on a magnified scale has assured our advance against the hazards of nature.

"Almost impenetrable terrain and vast distances have not prevented our doctors from pressing close to the enemy line to give the wounded immediate care. Air evacuation reached its highest development in transporting casualties from the field to hospitals far in the rear. New drugs have accomplished miracles in treatment. And in consequence the command has been maintained in a gratifying state of health with the rate of recovery of the sick and wounded unsurpassed.

"The Journal of Military Medicine in the Pacific is a commendable endeavor to disseminate valuable information and has my approval and best wishes for success. Without health—physical, mental and spiritual—there can be nothing."

ARMY EXCEEDS QUOTA ON RELEASE OF DOCTORS

The Army's quota of 13,000 doctors to be released to civilian life by December 31 has been exceeded six weeks in advance of the deadline, Major General Norman T. Kirk, Surgeon General of the Army, has announced.

The total number of doctors who have been separated from the service reached 13,320 for the week ending November 16. For the same week the total for nurses who have been retired came to 20,222 and the dentists total was 2,460, according to General Kirk.

Even though the December 31 quota has been attained sooner than expected, Medical Department officials pointed out there will be no slackening in the Army's efforts to return as many doctors to civilian life as possible in the quickest time.

From a peak strength of over 45,000 doctors, General Kirk has announced that all but 11,000 will be out of the service by the first of June. In order to do this the Army must continue to follow its policy of expediting the release of doctors as well as other Medical Department personnel in every way possible.

MEDICAL DEPARTMENT PERSONNEL IN ETO GET TOTAL OF 22,304 AWARDS

Medical Department personnel in the European Theater of Operations have received a total of 22,304 awards between the period of December 7, 1941 and October 1, 1945, including 97 Distinguished Service Crosses and 2,849 Silver Stars, according to a recent announcement by the Office of The Surgeon General.

Enlisted men of the Medical Department

received 17,974 of the awards, officers 3,758, and nurses 572.

The 32,000 officers of the medical service in this theater (not including nurses) received four Distinguished Service Crosses, 196 Legions of Merit, 4 Clusters to the Legion of Merit, 200 Silver Stars, 20 Clusters to the Silver Star, 304 Soldier's Medals, 2,716 Bronze Star Medals, 308 Clusters to the Bronze Star, 3 Air Medals, and 3 Clusters to the Air Medal.

The Congressional Medal of Honor was received by one of the 202,000 Medical Department enlisted men in the European Theater of Operations. They also received 93 Distinguished Service Crosses, 16 Legions of Merit, 2,646 Silver Stars, 110 Clusters to the Silver Star, 202 Soldier's Medals, 13,779 Bronze Star Medals, 808 Clusters to the Bronze Star Medal, 227 Air Medals, and 92 Clusters to the Air Medal.

Of the maximum number of 17,838 nurses serving in this theater, four were killed in action, one was taken prisoner, and seventeen received the Purple Heart. They received 5 Legions of Merit, 3 Silver Stars, 4 Soldier's Medals, 322 Bronze Star Medals, 1 Cluster to the Bronze Star Medal, 219 Air Medals, and 18 Clusters to the Air Medal.

The award totals listed are exclusive of the Purple Heart.

AN AMPUTEE SPEAKS

The following letter from an amputee of eighteen years experience wearing an artificial limb is reprinted from the November 14th Washington Times-Herald:

"I think that it is about time to tell the public the other side of the story about artificial limbs. The articles so far printed have very little, if any, experienced background.

"By that I mean the authors of these articles have only worn artificial limbs a short time, maybe a year or maybe a week. Some have never worn limbs at all.

"One is hardly qualified to make any statement either way unless he has worn a limb long enough to know how it stands the strain of everyday use. As for myself, I have been wearing two artificial limbs, both above the knee, 7-and-9 inch stumps, for nearly 18 years. I know how they work and how they wear.

"I have a regular position, like most any other physically perfect man. I stand on my feet about five hours a day doing spray painting. I am also active in sports as I bowl, pitch baseball, hunt, and fish. When you tramp over five miles of ground, hunting, your limbs are under more strain than 100 times normal walking on sidewalks. The strain of twisting the joints when you bowl or throw a baseball is terrific.

"My limbs stand that pressure.

"I have worn four pairs of limbs in 18 years, and the ones I have now will last at least four more years. This averages five and a half years at the least. My other limbs didn't wear out—I outgrew them as I became older. With the experience I have had I can say that the limbs are strong and will stand a lot of punishment.

"You must take into consideration that you wouldn't beat your natural leg around. Therefore, if you treat your artificial limb as a natural limb, it will give you years of satisfaction.

"As for the squeaks that cause embarrassment (as one writer gave as one fault), the answer is simple. If you don't oil your car or any other mechanical device, it will become noisy. What's the difference? You wash your natural limb to keep it clean so as not to have dirt sores collect and cause little use of the limb.

"Well, just bathe your artificial limb with oil at the joints ever so often and your answer is there.

"There have been improvements in the industry in the past 25 years. Metal limbs have been perfected for lightness. Hip control has been installed on above-knee limbs so as to do away with about six feet of straps over your back and shoulders, such as my first pair had; and there are many other things that add to more comfort in an artificial limb.

"There has been talk about limbs being too heavy. Mine weigh 7½ pounds each. That is considered a little better than average weight for an above-knee limb. They do not tire me, and as for myself, another couple pounds would come in handy in windy weather as they are light at 7½ pounds and hard to handle in windy weather.

"The shape of these limbs is perfect. A lady wearing stockings can stand in front of a person without being detected that she is wearing an artificial limb. The same is true of a man. Of course, if the limb is not covered it is noticeable only by the joints and color. But who wants to run around without stockings anyway?

"As for the price, well, $150 to $250 is just a trifle considering the benefit you derive from the appliance. And you must remember there is a lot of skilled labor involved in the manufacture of the limb. As for me, I wouldn't be without mine."

(Signed) HARRY E. ASHBAUGH.

NEBRASKA STATE DEPARTMENT OF HEALTH

EDUCATIONAL COURSES IN PUBLIC HEALTH

We believe that a continuous flow of information on public health and how the consultant services of the State Department of Health can be used by communities in Nebraska, needs to be going out to the public through the various groups who may be especially interested in public health as one avenue of service.

Staff members of the State Department of Health are giving credit courses in Public Health to the following groups:

1. Bryan Memorial Hospital, Lincoln—Senior Nurses' group.
2. Mary Lanning Hospital, Hastings — Senior Nurses' group.
3. St. Francis Hospital, Grand Island — Senior Nurses' group.
4. The Dental College, University of Nebraska, Lincoln—Senior Students (begins in February).
5. State Teachers College, Kearney. This course emphasizes Public Health Education and Methods and Materials for Teaching.
6. An In-Service Course in Public Health Education, Methods and Materials—to the public health nurses in two of the local health departments.

D. M. Alderson, M.D., has returned from service and has re-joined the staff of the State Department of Health which he left in 1941 to go into service.

Dr. Alderson was in the Alaskan and the European Theaters of War. In Alaska he organized and administered two station hospitals and trained the medical detachments. Later, as port surgeon he was responsible for sanitary control of shipping and for inspection of foods.

In Germany as Public Health Officer in a regional government team of the Allied Military Government, he reorganized and supervised civilian public health in Darmstadt. The five-point program included communicable disease control; tuberculosis and venereal disease control; hospital service and furnishing of medical supplies.

Dr. Alderson is now Assistant Director of the Division of Maternal and Child Health, State Department of Health.

E. A. Rogers, M.D., returns to the State Department of Health and to his former position as Director of Tuberculosis Survey. Dr. Rogers did postgraduate work in the School of Public Health, University of Michigan. Before becoming Director of Tuberculosis Survey, Dr. Rogers was Health Officer in the Demonstration Unit, which included the counties of Madison, Wayne, Pierce and Stanton. Prior to entering the service he directed the tuberculosis skin-testing survey in Buffalo, Dodge and Saunders Counties.

Entering the service in March, 1941, Dr. Rogers was stationed at Ft. Leonard Wood; Camp Phillips, Kansas; and Camp Ellis, Illinois. His two years overseas were spent in Oahu and Guam, a year at each station.

The 1946 Health Almanac is off the press. Any physician desiring extra copies for their reading tables may have them by sending to the Division of Public Health Education, State Department of Health.

Miss Helen Leiser, former Public Health Nurse Supervisor with the State Department of Health, has received her discharge from the Army Nurse Corps. She has accepted a temporary appointment on the faculty at Bryan Memorial Hospital, Lincoln. Miss Leiser plans to enroll at the University of Nebraska next semester to complete her work for her baccalaureate degree.

Mrs. Judith Whitaker, Executive Secretary, Nebraska State Nurses' Association, and Mrs. Alice Schaeffer, Counselor, Professional Counseling and Placement Service of the Nebraska State Nurses' Association, attended a two-week session at the University of Minnesota, Minneapolis, on counseling and placement procedures and practices conducted by the American Nurses' Association.

Venereal Disease Case Finding

Rapid strides have been made in the treatment of venereal diseases in recent years. Reasonably adequate methods of therapy are now available for these diseases, but the citizens of this State will not benefit from this knowledge until it can be applied to large numbers of infected persons early in the course of their disease. Most syphilitic persons do not begin treatment until the latent or late stages have been reached, if at all. Only a relatively small proportion of the gonorrhea cases are ever treated by recognized methods.

During the war years, increased numbers of infected persons have been placed under treatment because of the diligence of the armed services and their cooperation with the civilian health authorities. Now with the demobilization program, civilian health authorities do not have contacts referred to them for investigation. As a result, the number of venereal disease cases discovered will decline unless other sources of case finding are found. It should be obvious that more effort must be expended on case finding.

Ideally, any wide-spread effort to discover new cases of venereal disease should be centered around the participation of the private physician, for it is he who is responsible for the diagnosis and administration of therapy for most of the American public. Since the best method of finding new cases is interviewing newly diagnosed cases of infectious venereal disease, the private physician is the logical person to conduct such interviews. All doctors know that most venereal disease is obtained through sexual contact. The nature of the relationship between the private physician and his patient should enable him to obtain more complete and accurate information about sex contacts than would be possible by any other qualified person.

In the State of Nebraska the Venereal Disease Division of the Department of Health has trained nurse investigators. Any private physician may request the services of such a nurse investigator to assist him in locating and bringing the contacts in to him for examination and treatment, if indicated. The identity of the named contact will be held in complete confidence by the Department of Health. Private physicians may obtain, also without charge, the analysis of specimens by the State Laboratories and drugs for the treatment of reported cases of venereal disease. In addition, the Department of Health will pay a recognized private physician for the treatment of syphilitic persons until they have had 20 arsenicals and 20 heavy metals.

The venereal disease rates are relatively low in Nebraska. Let us intensify our efforts to do a better job of contact interviewing so that they will be lower. Otherwise, we know that they will increase. If you are unable to get the contact in for examination, refer the case to the Department of Health.

Daniel Sminney,
Division, Venereal
Disease Control.

Membership Roster as of December 31, 1945

FIRST DISTRICT

WARREN Y. THOMPSON, Councilor

* Military Service

DOUGLAS

OMAHA—

Adams, Payson
527 Medical Arts
Allen, John F.
912 Medical Arts
*Alliband, H. T.
Allingham, H. T.
4823 So. 24th
Andersen, Alfred C.
430 Aquila Court
Andersen, M. C.
1120 Medical Arts
Anderson, Harley E.
1116 Medical Arts Bldg.
Armbrust, Walter
1113 Redick Tower
*Arnsten, L. L.
Attwood, N. H.
502 Medical Arts
Baker, Chas. P.
Samuel Merritt Hospital,
Oakland, Calif.
*Bantin, C. F.
Bantin, E. W.
440 Aquila Court
Baptist, John
303 Neville Block
Barry, M. W.
1416 Medical Arts
Bartek, Julius G.
619 Barker Bldg.
Beber, Meyer
631 Medical Arts
Beck, F. O.
Livestock Natl. Bank
Bennett, A. E.
607 Medical Arts
Best, R. Russell
527 Medical Arts
Betz, W. H.
724 City Natl. Bank
Bisgard, J. Dewey
1420 Medical Arts
Bleick, L. C.
830 City Natl. Bank
Bliss, Rodney W.
1120 Medical Arts
Boetel, George H.
3019 Ames Street
Boler, Thos. D.
718 Barker Bldg.
Borghoff, J. A.
1319 Medical Arts
*Bowers, Warner F.
Boyne, H. N.
1302 Medical Arts
Brandt, Emelia H.
602 Omaha Loan & Bldg.
*Brazer, J. G.
Brinkman, H. H.
6014½ Military Ave.
Brodkey, M. H.
320 Medical Arts
Brown, Alfred
1618 Medical Arts
Burns, B. C.
Bushman, L. B.
627 City Natl. Bank
Callfas, W. F.
Pasadena 2, Calif.
Cameron, O. J.
1520 Medical Arts
Carnazzo, S. J.
712 Barker Bldg.
*Cash, Paul T.
Cassidy, W. A.
1020 Medical Arts
Catania, Nancy
418 Brandeis Theater
Christensen, Julius B.
1326 Medical Arts
Christlieb, J. M.
4702½ So. 24th St.
Clark, Geo. L.
1817 Vinton
Clarke, F. S.
314 Medical Arts
Cloyd, A. D., Jr.
316 Medical Arts
Cloyd, A. D., Sr.
Insurance Bldg.
Coakley, L. P.
918 Medical Arts
Cohen, Louis A.
Little Rock, Ark.
Comine, J. J.
820 Medical Arts
Conlin, F. M.
1414 Medical Arts
Connolly, E. A.
502 Medical Arts
Cook, Lyman J.
311 Medical Arts
Courtney, J. E.
730 City Natl. Bank
*Crynes, S. F.
Davis, Edwin G.
1436 Medical Arts
Davis, Herbert H.
1204 Medical Arts
Davis, J. Calvin
425 Aquila Court
Davis, W. W.
1007 So. 37th St.
DeLanney, L. A.
721 Medical Arts
DeLong, Henry L.
4801 Chicago St.
Dendinger, W. M.
1036 Redick Tower
Dishong, G. W.
1530 Medical Arts
DiStefano, Carmelo
721 Medical Arts
Donelan, James P.
Guarantee Mutual Life
Ins. Co.
Dow, A. G.
314 Medical Arts
*Dowell, D. A.
*Downing, John E.
Drdla, Theodore
460 Aquila Court
Duncan, J. W.
730 City Natl. Bank
Dunn, F. Lowell
737 Medical Arts
Dwyer, J. R.
820 Medical Arts
Egan, Richard L.
St. Joseph's Hospital
Egan, Wm. J.
460 Aquila Court
Eggers, H. E.
University Hospital
Ellis, P. H.
2324 Fowler
Elston, Harry R.
4930 So. 24th
Endres, Gregory L.
5811 Military Ave.
Erman, J. M.
722 World Herald Bldg.
Evans, E. B.
201 Leflang Bldg.
Everitt, N. J.
4838 So. 24th St.
Ewing, Ben F.
220 Medical Arts
*Faier, Samuel Z.
Farrell, Robert F.
411 Medical Arts
Fellman, A. C.
316 City Natl. Bank
Findley, David
446 Aquila Court
Findley, Palmer
446 Aquila Court
*Finegan, James
Fleishman, Max
County Hospital
Follman, J. C.
1136 First Natl. Bank
Fouts, Roy W.
1007 Medical Arts
Frandsen, Charles
1622 Medical Arts
*Freymann, John J.
Gardiner, J. F.
628 Medical Arts
*Gatewood, John W.
Gedgoud, John L.
205 No. 38th and
Uni. Hosp.
Gerald, H. F.
Creighton Uni.
Gifford, Harold
1620 Medical Arts
Gleeson, John J.
601 City Natl. Bank
Green, M. C.
454 Aquila Court
Greenberg, A.
320 Medical Arts
*Greenberg, M. M.
Greene, Arthur M.
629 Medical Arts
Grier, John J.
1307 Medical Arts
Grier, M. E.
1307 Medical Arts
Grodinsky, Manuel
902 Medical Arts
*Gross, Joseph F.
Gysin, Walter M.
Lutheran Hospital
Hahn, W. N.
517 City Natl. Bank
Hall, B. W.
2736 No. 61st St.
Hall, Lynn T.
1204 Medical Arts
Hamsa, W. R.
527 Medical Arts
Haney, W. P.
1500 Medical Arts
Hanisch, L. E.
1218 Medical Arts
*Hansen, Clifford H.
Hansen, G. M.
4826 So. 24th
Hardy, C. C.
1216 Medical Arts
Harris, T. T.
Clarkson Hospital
Harrison, Merle A.
525 City Natl. Bank
Hawkins, Anthony L.
2120½ No. 24th
*Hayes, Jack M.
Hayes, E. R.
524 Davis St.,
Evanston, Ill.
Hellwig, J. W.
1008 WOW Bldg.
*Henrich, Leo C.
Henske, J. A.
1614 Medical Arts
Heumann, J. M. F.
6110 Military Ave.
Hickey, Charles
Bennington, Nebr.
Hill, F. C.
430 Aquila Court
Hirschmann, H.
454 Brandeis Theater
Hoffman, L. O.
1012 Medical Arts
Holden, W. J.
Elkhorn, Nebr.
Hollenback, C. F.
5821 Military
Holmes, W. E.
Gering, Nebr.
Holst, John
724 City Natl. Bank
Hotz, Harley
1013 Redick Tower
Howard, M. C.
802 Medical Arts
*Hubenka, A. H.
Hughes, Leo V.
442 Aquila Court
Hunt, H. B.
Methodist Hospital
Hyde, J. F.
812 Omaha Loan & Bldg.
Isacson, Sven
410 Aquila Court
Iwersen, Frank J.
915 Medical Arts
Iwersen, J. C.
236 Medical Arts
Jahr, Herman M.
1120 Medical Arts
James, C. S.
615 Medical Arts
Jenkins, Harry J.
1113 Redick Tower
Johnson, A. C.
326 Medical Arts
Johnson, Herman F.
831 Medical Arts
Johnson, J. A.
602 Omaha Loan & Bldg.
*Jonas, August F.
Jones, Wesley
1514½ No. 24th St.
Judd, J. H.
1020 Medical Arts
Kadavy, G. J.
2703 So. 16th St.
Keegan, J. Jay
1527 Medical Arts
Kelley, Ernest
1104 City Natl. Bank
Kelley, J. Whitney
1104 City Natl. Bank
Kelley, Wm. E.
1104 City Natl. Bank
Kelly, James F.
816 Medical Arts
*Kemp, Wm. T.
Kennedy, H. B.
Insurance Bldg.
Kennedy, John C.
1618 Medical Arts
Kenney, B. V.
617 Medical Arts
Kirk, E. J.
434 Aquila Court
*Klabenes, Frank J.
Kleyla, John R.
712 Medical Arts
Korth, Z. N.
1319 Medical Arts
Kroupa, W. E.
4923½ So. 24th St.
Kully, Herman E.
1316 Medical Arts
Langdon, J. F.
1341 Medical Arts
Lee, Leroy W.
1436 Medical Arts
*LeMar, J. D.
Lennox, G. B.
2314 No. 24th
*Levine, Victor E.
*Lewis, Raymond G.
*Longo, Joseph
Lovely, Frank T.
1136 First Natl. Bank
Luikart, Ralph
708 Medical Arts
Lukovsky, J. F.
817 WOW Bldg.
McArdle, Prentiss
4524 Blondo St.
McAvin, J. S.
University Hospital
McCarthy, J. D.
1036 Medical Arts
McCleneghan, Sam
615 City Natl. Bank
McCurdy, Thomas
Creighton University
McDermott, Arnold
712 Medical Arts
McEachen, Esther I.
307 Medical Arts
McGee, Harry E.
1126 City Natl. Bank
McGee, J. W.
406 Aquila Court
McGoogan, Leon S.
813 Medical Arts
McGuire, L. D.
326 Medical Arts
McKean, J. W.
Long Beach, Calif.
McLaughlin, C. W.
413 Medical Arts
McMartin, Charles
611 City Natl. Bank
McMartin, W. J.
611 City Natl. Bank
McNamara, J. W.
633 City Natl. Bank
Mackenbrock, F. C.
827 City Natl. Bank
MacQuiddy, E. L.
478 Aquila Court
Madsen, C. C.
5901 Military Ave.
Manning, E. T.
1407 Medical Arts
Marble, R. E.
1221 First Natl. Bank
Margolin, Morris
902 Medical Arts
Marsh, Charles
Valley, Nebr.
Martin, James W.
1418 Medical Arts
*Martin, Paul J.
Mason, Claude W.
Deceased 8-4-45

Mauer, R. T.
1520 Medical Arts
Maxwell, J. T.
1140 Medical Arts
Mercer, Nelson S.
2506 Dodge Street
Millett, Clinton C.
442 Aquila Court
Mnuk, Frank J.
460 Aquila Court
Montgomery, E. C.
1620 Medical Arts
Moody, W. B.
530 Medical Arts
Moon, C. F.
1607 Medical Arts
Moon, Louis E.
1326 Medical Arts
Moore, Clyde
319 Medical Arts
Moran, Clarence S.
Mitchell, S. D.
Morrison, Wm. Howard
1500 Medical Arts
*Morrow, Paul N.
Moser, R. A.
1407 Medical Arts
Muehlig, W. A.
636 Medical Arts
*Murphy, Albert V.
Murphy, Chas. M.
63rd and Maple
Murphy, J. Harry
915 Medical Arts
Murray, F. J.
63rd and Maple Sts.
*Nelson, Floyd C.
Nemec, C. J.
629 City Natl. Bank
Nemec, Edward C.
629 City Natl. Bank
Newman, James K.
Deceased 10-5-45
Nickum, Oliver C.
524 Brandeis Theater
Niehaus, F. W.
1622 Medical Arts
Nilsson, John Fred
612 Omaha Loan & Bldg.
Nilsson, John R.
612 Omaha Loan & Bldg.
Nolan, W. J.
203 Baldridge Bldg.
Novak, W. F.
721 Medical Arts
O'Brien, D. J.
Offerman, A. J.
4826 So. 24th
O'Hearn, J. J.
4811½ So. 24th St.
O'Neil, Gerald C.
640 City Natl. Bank

Osheroff, S. A.
536 Medical Arts
*Owen, D. R.
Owens, C. A., Jr.
1515 Medical Arts
Parsons, Antony
Valley, Nebr.
Pinkerton, W. J.
Deceased 4-15-45
Pleiss, Joseph A.
802 Medical Arts
Pollard, Chas. W.
813 Medical Arts
Potts, John B.
3817 Dewey Ave.
Poynter, C. W. M.
University Hospital
Pratt, George P.
1234 Medical Arts
Prichard, Geo. W.
3013 Ames Ave.
Priest, P. H.
2210½ Military
Pruner, A. C.
402 Medical Arts
Quigley, D. T.
721 Medical Arts
Quigley, W. H.
636 Medical Arts
Rance, W. T.
730 City Natl. Bank
*Rasgorshek, R. H.
Read, Paul S.
7009 Minne Lusa Blvd.
*Redgwick, J. P.
Reed, S. G.
306 So. 24th St.
Rich, Charles O.
5017 Chicago
Riley, B. M.
538 City Natl. Bank
Robertson, G. E.
308 So. 39th
Rubendall, Clarence
1107 Medical Arts
Rubnitz, A. S.
732 Medical Arts
Russum, B. C.
816 Medical Arts
Sachs, Adolph
527 City Natl. Bank
Sage, Earl C.
1234 Medical Arts
Schmitz, W. H.
611 City Natl. Bank
Schrock, R. D.
831 Medical Arts
Schwertley, F. J.
614 Barker Bldg.
Severin, Matthew J.
4823 So. 24th

Shearer, W. L.
1226 Medical Arts
Sher, Philip
424 Brandeis Theater
Shramek, C. J.
510 Redick Tower
Shramek, J. M.
612 Medical Arts
Simanek, George F.
540 Medical Arts
Simmons, E. E.
826 Medical Arts
Simonds, Francis L.
1216 Medical Arts
Simpson, J. E.
1229 First Natl. Bank
Slutzky, Ben
Creighton Uni. School of Med.
Solomon, W. W.
2425 No. 24th St.
Srb, Adolph F.
1719 So. 16th St.
Stastny, Olga
308 So. 41st St.
Staubitz, Herbert F.
4702 Walnut St.
Stearns, R. J.
620 Omaha Loan & Bldg.
Steinberg, A.
536 World Herald Bldg.
Steinberg, M. M.
4353 Dodge St.
Stokes, W. H.
1620 Medical Arts
Streitweiser, R. J.
212 Medical Arts
Strickland, W. R.
514 Omaha Loan & Bldg.
Sucha, W. L.
915 Medical Arts
Sullivan, H. T.
1036 Redick Tower
Swab, C. M.
1316 Medical Arts
Swab, Elizabeth M.
1316 Medical Arts
Swoboda, Jos. P.
4824½ So. 24th St.
Tamisiea, John A.
718 Barker Bldg.
Taylor, W. H.
3807 Cuming St.
Thomas, John Martin
1418 Medical Arts
*Thompson, C. Edward
Thompson, C. Q.
1530 Medical Arts
Thompson, Dorothy H.
1234 Medical Arts
Thompson, Warren Y.
1530 Medical Arts

Thomsen, J. H.
205 So. 37th St.
Tipton, P. W.
454 Aquila Court
Tollman, J. P.
University Hospital
Tomlinson, C. C.
1520 Medical Arts
Tompkins, Charles A.
Pasadena, Calif.
Torpy, T. W.
920 WOW Bldg.
Traynor, R. L.
527 City Natl. Bank
Trimble, C. R.
2402 Ames Ave.
VaVerka, James W.
1113 Medical Arts
Vetter, J. G.
721 WOW Bldg.
Walsh, E. M.
1412 Medical Arts
Warta, J. J.
817 WOW Bldg.
Waters, C. H.
1407 Medical Arts
*Waters, Chester H., Jr.
Watke, F. M.
528 Medical Arts
Wearne, F. J.
830 City Natl. Bank
Weinberg, J. A.
Van Nuys, Calif.
Whitcomb, Glenn D.
926 Medical Arts
Wigton, H. A.
1614 Medical Arts
Wilbur, Cornelia B.
607 Medical Arts
Wilhelmj, C. M.
Creighton Uni.
Wilson, Donald J.
1113 Medical Arts
*Wright, W. D.
Wyrens, Raymond J.
316 Medical Arts
Weland, Regis E.
4230 Emmet St.
Young, Alexander J.
1117 Medical Arts
Young, G. Alexander
1436 Medical Arts
Young, George A., Jr.
1436 Medical Arts
Young, Richard H.
1436 Medical Arts

SARPY

PAPILLION—
Baca, D. E.
Martin, Otis

SECOND DISTRICT

CLAYTON ANDREWS, Councilor

LANCASTER

LINCOLN—
Adams, R. B.
720 So. 22nd St.
Albin, W. L.
619 Fed. Sec. Bldg.
Alcorn, F. A.
2201 So. 11th St.
Andrews, Clayton F.
1016 Sharp Bldg.
Andrus, F. M.
943 Stuart Bldg.
Angle, E. E.
903 Sharp Bldg.
Arnholt, M. F.
935 R St.
*Arnold, C. H.
Bancroft, Paul M.
621 Sharp Bldg.
*Bartholomew, P. H.
Becker, W. C.
826 Sharp Bldg.
Black, Paul
929 Stuart Bldg.
Blum, Henry
214 Sec. Mutual Bldg.
Bowman, D. J.
400 No. 27th
Brooks, E. B.
939 Stuart Bldg.
*Calhoun, O. V.
*Campbell, W. A.
Carveth. W. W.
625 Sharp Bldg.
Case, J. D.
1101 Fed. Sec. Bldg.
Churchill, I. W.
200 Bankers Life Bldg.

Clark, E. E.
430 Stuart Bldg.
Coleman, F. D.
936 Stuart Bldg.
Covey, Geo. W.
805 Sharp Bldg.
Crook, C. E.
Ann Arbor, Michigan
*Crook, G. D.
Crook, Roy
4825 St. Paul
Deppen, E. N.
911 Sec. Mut. Bldg.
Easton, R. H.
City Health Dept.
(Polk Co.)
*Elliott, C. K.
Emerson, Clarence
1700 So. 24th St.
Emery, A. L.
Waverly, Nebr.
Everett, H. H.
417 Woodmen Acc. Bldg.
*Everett, H. H., Jr.
Fahnestock, C. L.
1812 So. 26th
*Fechner, A. H.
*Ferciot, C. F.
Finkle, B. A.
726 Sec. Mut. Bldg.
Finney, E. B.
323 So. 14th
Finney, L. E.
323 So. 14th
Flanagan, M. L.
5515 South St.
Flansburg, H. E.
415 Bankers Life Bldg.
*Frazer, M. D.

Furgason, A. P.
303 Richards Block
*Garlinghouse, R. E.
*Gibson, L. V.
Graham, Alice
1701 So. 24th
*Gray, Richard W.
*Greer, Rex E.
*Haentzschel, L. W.
*Haley, Robert R.
Hancock, E. W.
820 Sharp Bldg.
Harms, C. W.
927 Sec. Mut. Bldg.
Harvey, H. E.
824 Sharp Bldg.
Hickman, C. C.
1028 Stuart Bldg.
Hilton, D. C.
305 Richards Blk.
*Hobbs, E. T.
Hohlen. K. S. J.
914 Fed. Sec. Bldg.
Hompes, J. J.
702 Sharp Bldg.
Hummel, R. O.
1025 Sharp Bldg.
Johnson, F. B.
1110 Sharp Bldg.
*Johnson, Robert W.
Jones, T. K.
Lincoln State Hospital
Lamb, W. E.
1645 D St.
Lewis, G. E.
332 Natl. Bank Com.
Loder, R. H.
State Capitol Bldg.

Loveland, Grace
909 Sharp Bldg.
*Loudon, John R.
Lyman, R. A.
1649 So. 21st St.
McCarthy, T. F.
202 Lib. Theater Bldg.
McLeay, H. L.
State Hospital (Clay Co.)
Marx, L. E.
901 Fed. Sec. Bldg.
*Marx, Paul D.
*Merideth, J. A.
*Miller, N. R.
*Miller, S. D.
Misko, G. H.
308 First Natl. Bank
Morgan, H. S.
935 Stuart Bldg.
*Morton, H. B.
Moyer, T. C.
1110 Sharp Bldg.
Munger, A. D.
1015 Sharp Bldg.
*Munger, Horace V.
Munger, I. C.
916 Sharp Bldg.
*Neely, J. Marshall
Neely, Orvis A.
3414 Woodshire
Olney, R. C.
800 So. 13th
Orr, H. W.
307 Sharp Bldg.
Owen, L. J.
954 Stuart Bldg.
Palmer, Janet Forbes
1601 So. 22nd
*Palmer, R. B.

Pelikan, C. C.
1037 Stuart Bldg.
*Peterson, J. C.
*Podlesack, J. I.
Rausten, David S.
4025 Sheridan
(Custer Co.)
*Reed, E. B.
Reese, S. O.
816 Sharp Bldg.
Reinhard, O. A.
1037 Stuart Bldg.
*Rembolt, Ray R.
*Reynolds, Verne J.
Rider, E. E.
Santa Barbara, Calif.
*Rider, Larry D.
Robbins, Carrie
5127 Prescott
Rogers, F. L.
805 Sharp Bldg.
Rowe, E. W.
1037 Sharp Bldg.
*Royal, P. A.
Sanderson, D. D.
914 Stuart Bldg.
Scott, H. A.
600 So. 74th
Selby, C. A.
State Capitol
(Lincoln Co.)

*Sharrar, Lynn
Skinner, A. O.
State Hosp. (Gage Co.)
Smith, A. L.
1001 Fed. Sec. Bldg.
Spradling, F. L.
State Hospital
Stapleton, H. B.
Hickman, Nebr.
*Stein, Robert J.
Strader, R. M.
308 Sec. Mut. Bldg.
*Still, R. M.
*Taborsky, A. F.
Tanner, Frank H.
3831 Puritan
Taylor, H. A.
4728 St. Paul
Taylor, J. D.
4728 St. Paul
Teal, F. F.
910 Sharp Bldg.
Teal, Fritz, Jr.
309 Sharp Bldg.
*Teal, Philip
Thomas, J. W.
1115 Sharp Bldg.
Thompson, J. C.
707 Fed. Sec. Bldg.
Thomson, J. E. M.
1104 Sharp Bldg.

*Underwood, G. R.
Walker, G. H.
412 Ins. Bldg.
Warner, Ruth
954 Stuart Bldg.
Webb, A. H.
827 Sec. Mut. Bldg.
Wegner, E. S.
724 Sharp Bldg.
Welch, J. S.
1037 Stuart Bldg.
Whitham, Roy H.
909 Stuart Bldg.
Whitlock, H. H.
805 Sharp Bldg.
Wiedman, E. V.
315 First Natl. Bank
*Wood, Maynard A.
Woodward, J. M.
910 Sharp Bldg.
Wright, F. T.
943 Stuart Bldg.
Zemer, S. G.
949 Stuart Bldg.
*Zinneman, Helmut

CASS

AVOCA—
Brendel, J. W.

ELMWOOD—
Liston, O. E.

GREENWOOD—
Talcott, N. D.

LOUISVILLE—
*Worthman, H. W.

MURDOCK—
*Formanack, C. J.

PLATTSMOUTH—
*Eaton, Wilbur S.
Westover, R. P.

OTOE

NEBRASKA CITY—
Edmonds, Wm.
*Ewing, Ben E.
Gilligan, J. P.
*Kenner, W. C.
MacVean, M. M.
Ramacciotti, W. S.
Stonecypher, D. D.
Weeks, T. L.
Zimmerer, C. G.

OTOE—
Dieter, L. D.

SYRACUSE—
Williams, C. R.

LUVERNE, MINN.—
*Thorough, Paul

THIRD DISTRICT

W. E. SHOOK, Councilor

GAGE

ADAMS—
*Swartwood, F. M.
Waggener, J. T.

BEATRICE—
Bradley, C. A., Honorary
Brown, H. R., Censor
*Brown, R.
*Bryant, A. R.
Buchanan, Rea
Buckley, F. W., President
*Elias, H. F.
Hepperlen, H. M., Jr.
*McCleery, D. P.
McGirr, J. I., Honorary
Penner, H. G.
Penner, L. E.
*Rathbun, Sanford M.
*Rush, W. A.
Taylor, R. W., Sec.-Treas., Delegate
Waddell, J. C.
*Waddell, W. W.
Wildhaber, Wm. T.

BLUE SPRINGS—
Warner, E. A.

CORTLAND—
Schowengerdt, F. T.

FILLEY—
Hodam, J. A.

LIBERTY—
Bachle, E. P.

ODELL—
Rice, C. E.

WYMORE—
Elias, Francis, Censor
Gafford, Chas. C., Honorary Deceased 2-1-45
Thomas, C. W., Censor, Vice President

HANOVER, KANSAS—
Hurtig, H. G.

PAWNEE

PAWNEE CITY—
Anderson, A. B., Jr., Vice President, Delegate
Boyer, W. R., Sec.-Treas.
*Harmon, L. D.
*Lowe, DeWitt S.

TABLE ROCK—
McCrea, E. L., Honorary, President, Alternate

NEMAHA

AUBURN—
Cline, Edgar, Vice President, Alternate
Irvin, I. W., Censor, Delegate
Krampert, F. L., President, Censor
Lorance, B. F., Sec.-Treas.
*Tushla, F. M.

RICHARDSON

FALLS CITY—
Cowan, S. D., Censor
Gillespie, J. C., Censor
Henderson, R. G.
Hustead, C. L., Sec.-Treas.
*Ketter, W. D.
*Lennemann, Ernest
Miner, H. R., President, Delegate
Shepherd, Wm., Vice President, Alternate
Wilson, M. L.
*Youngman, Robert A.

HUMBOLDT—
Heim, H. S.
Stappenbeck, A. P.
Waggener, J. A., Honorary

SALEM—
McArdle, Geo. M.

SHUBERT—
Shook, W. E., Censor

JOHNSON

COOK—
Conlee, C. C., Vice President, Alternate, Censor

STERLING—
Turner, J. W., Honorary, Censor

TECUMSEH—
Fitzsimmons, A. P., Honorary, Deceased 2-21-45
Lanspa, J. A., President, Delegate

VESTA—
Zeigler, Chas. H., Honorary Censor

FOURTH DISTRICT

G. E. PETERS, Councilor

MADISON

BATTLE CREEK—
Rudloff, F. X.

MADISON—
*Eagan, John C.

MEADOW GROVE—
Kindred, H. L.

NEWMAN GROVE—
Frink, F. L., Honorary
Jensen, Frank

NORFOLK—
Barry, A. C.
*Brauer, S. H.
Brush, E. L., Delegate
Charlton, Geo. E.
Conwell, G. D.
Farner, B. R.
Howley, A. N., Alternate
Pollack, F. A.
*Salter, Geo. B.
*Sandritter, G. L.
*Schwedhelm, A. J.
Stark, Lucien
Stewart, Geo. J., Censor
Verges, C. J.

TILDEN—
Barr, Carl C.
Salsburg, H. E., Vice President

TOPEKA, KANSAS—
Winkle, V. M., State Board of Health

CUMING

BEEMER—

BANCROFT—
Francis, H. W., Delegate
Hughes, W. T.

WEST POINT—
Anderson, A. W., Alternate
*Robbins, H. M.
Thompson, I. L.
*Thompson, L. L.

WISNER—
Hansen, Warren D.

PIERCE

OSMOND—
Mailliard, A. E., Alternate, Censor

PIERCE—
Calvert, John H.
Devers, W. I., Sec.-Treas., Delegate

PLAINVIEW—
Johnson, M. A.

KNOX

CREIGHTON—
Burrell, R. H.
Wright, W. E., Delegate

BLOOMFIELD—
*Carrig, M. H.

CROFTON—
Swift, C. H.

NIOBRARA—
*Green, Carl R.
Neil, Stanley Roy

WAUSA—
Johnson, R. E., President, Alternate

STANTON

PILGER—
Reid, J. D., Delegate

STANTON—
Allen, S. G.
Tennant, H. S., Alternate

ANTELOPE

CLEARWATER—
Bennie, J. W.

ELGIN—
Graham, W. W.

NELIGH—
Curtis, E. E., Delegate, Censor
Harrison, U. S., Alternate

ORCHARD—
Fletcher, D. L.
Fletcher, W. G.

CEDAR

COLERIDGE—
Dewey, F. G., Sec.-Treas., Alternate

HARTINGTON—
Dorsey, F. P., Jr.

LAUREL—
Carroll, R. P., Delegate

RANDOLPH—
Cook, A. E., Honorary
Gleason, B. F.
Peters, G. E., Censor

DIXON

NEWCASTLE—
Richards, R. C.

PONCA—
Bray, R. E., Censor, Alternate

WAKEFIELD—
*Coe, C. Max

THURSTON

EMERSON—
Kildeback, J. C., Delegate, Huntington Park, Calif.

PENDER—
*Bradley, James D.
Pierson, C. A., Vice President

WALTHILL—
Graham, J. R.

DAKOTA

SOUTH SIOUX CITY—
Larsen, A. A., Censor
Neill, C. W.

WAYNE

WAYNE—
Benthack, Walter, Delegate
Ingham, C. T.
107 So. Chapel Ave.
Alhambra, Calif.
Kilian, L. J., Alternate

WINSIDE—
Craig, D. O., President

FIFTH DISTRICT
W. R. NEUMARKER, Councilor

DODGE

DODGE—
- Srb, G. J.

FREMONT—
- Buchanan, A. E., Censor
- *Byers, Robert C., Jr.
- Byers, R. C.
- Fasser, A. O., Alternate, Censor
- Harvey, Andrew
- Haslam, G. A.
- Heine, L. R.
- Heine, W. H.
- *Merrick, A. J.
- Moore, C. G.
- Morris, Robt. E. (Lancaster Co.)
- *Morrow, H. H.
- Morrow, H. N.
- Reeder, Grant, Vice President
- Seiver, Charlotte
- Van Meter, R. T., Delegate

HOOPER—
- Heine, C. D., President

NORTH BEND—
- Byers, G. A.

SCRIBNER—
- Stehl, C. H. L.

WASHINGTON

ARLINGTON—
- Bloch, D. M. Dodge Co., Sec.-Treas.
- Davies, R. A. Dodge Co., Censor

BLAIR—
- Howard, C. D., Vice President, Alternate, Censor
- Nielsen, Morris, Sec.-Treas., Delegate, Censor

FORT CALHOUN—
- Geesaman, E. S., President, Censor, Deceased 7-16-45

MERRICK

CENTRAL CITY—
- Benton, J. E., Sec.-Treas.
- Brown, A. D.
- Fouts, F.
- Hutchison, J. W., Alternate

CLARKS—
- Douglas, R. R., President, Delegate

PALMER—
- Racines, J. Y. Howard Co., Delegate, Censor

COLFAX

CLARKSON—
- Kavan, W. J., Sec.-Treas.
- Kovar, W. R., President

HOWELLS—
- Myers, H. Dey, Alternate, Censor
- *Tepley, G. L.

LEIGH—
- Eby, C. D., Vice President, Delegate
- Kuper, H. D., Censor

SCHUYLER—
- Kolouch, F. C.
- Kolouch, Fred Uni. of Minnesota
- Koory, S. S., Censor
- *Myers, H. Dey, Jr.

BOONE

ALBION—
- Davis, J. E., Vice President, Alternate
- *Higgins, J. P.
- Smith, J. W. B., President

CEDAR RAPIDS—
- Reeder, W. J., Censor, Sec.-Treas.

ST. EDWARD—
- Sullivan, G. W., Delegate, Censor

BURT

CRAIG—
- Allen, J. G., Vice President, Censor

LYONS—
- Heacock, F. M., Alternate

OAKLAND—
- Benson, H. W., Sec.-Treas.
- Tibbels, R. H.

TEKAMAH—
- *Lukens, I.
- Sauer, L. E., President, Delegate
- Wood, M., Censor

PLATTE

COLUMBUS—
- Allenburger, C. A.
- *Anderson, R. C.
- Campbell, C. H., Alternate
- Evans, James N.
- James, M. C.
- *Koebbe, E. E.
- LeMar, Fred A., Censor
- McGowan, P. H., Vice President, Censor
- Martyn, D. T.
- Meyer, J. E., Sec.-Treas.
- Morrow, F. H.
- Neumarker, W. R., President
- *O'Donnell, R. J.

DUNCAN—
- Cyphers, F. B.

HUMPHREY—
- Abts, A. W., Delegate

PLATTE CENTER—
- Bald, A. A., Censor

NANCE

FULLERTON—
- Granden, H. W.
- King, H. E., Sec.-Treas., Alternate

GENOA—
- Davis, Homer
- Williams, C. D., President, Delegate

SIXTH DISTRICT
C. W. WAY, Councilor

BUTLER

BELLWOOD—
- Matheny, Z. E., President, Honorary

DAVID CITY—
- *Burdick, D. E.
- Ekeler, Louis J., Sec.-Treas., Censor
- Ragan, L. E., Delegate, Censor

DWIGHT—
- Srb, J. J.

RISING CITY—
- Longacre, O. E., Vice President, Censor, Alternate

SEWARD

BEAVER CROSSING—
- Hille, C. F., Alternate, Censor

MILFORD—
- DeOgny, P. A., Censor
- Spieler, F. B.

SEWARD—
- Carr, J. W., Vice President
- *Clarke, H. D.
- Morrow, B. E., Censor
- Morrow, J., Honorary
- Stanard, John T., Sec.-Treas., Censor

STAPLEHURST—
- Meisenbach, J. E., President, Delegate

SAUNDERS

ASHLAND—
- Baer, B. H., Censor
- Kirkpatrick, C. F., Honorary
- Packer, J. M.

CEDAR BLUFFS—
- Stuart, A. E., Alternate, Honorary

CERESCO—
- Noyes, W. W., Delegate, Censor

MORSE BLUFF—
- Hubenbecker, J. C.

PRAGUE—
- Kasper, J. E.

VALPARAISO—
- *Hervert, J. W.

WAHOO—
- Hill, W. Ray, Vice President
- Lathrop, M. E., President
- Lauvetz, J. F., Censor
- *Rogers, E. A.
- Way, Charles, Sec.-Treas.
- Williams, J. B.

YUTAN—
- Friesen, H. F.

YORK

YORK—
- Bell, H. O., Delegate
- Bell, J. S., President
- Greenberg, B. N., Sec.-Treas.
- Harry, R. E., Vice President, Censor
- *Karrer, Robert E.
- *Kilgore, Robert H.
- *Kilgore, W. S.
- Root, B. A., Censor

HAMILTON

AURORA—
- Steenburg, D. B., Vice President, Alternate, Censor
- Steenburg, E. A., President, Censor
- Steenburg, E. K.
- Woodard, J. M., Sec.-Treas., Delegate, Censor

GILTNER—
- Marvel, P. O.

HAMPTON—
- Troester, O. M.

MARQUETTE—
- Weaver, R. L.

POLK

OSCEOLA—
- Eklund, H. S., President, Delegate

SHELBY—
- *Brillhart, E. C.

STROMSBURG—
- Anderson, C. L., Vice President, Alternate
- Blome, W. N., Sec.-Treas.

SEVENTH DISTRICT
A. A. ASHBY, Councilor

SALINE

CRETE—
- Conrad, A. A., Sec.-Treas., Deceased 7-9-45
- Forney, L. W., President, Delegate
- *Mack, M. A.
- Stejskal, F. J., Alternate

DEWITT—
- Runty, H. D. (Gage Co.), Alternate

FRIEND—
- Hamilton, F. T.
- Johnson, R. K.

TOBIAS—
- Blattspieler, A. C., Vice President

WESTERN—
- DuVall, Geo. R.

WILBUR—
- Kirchman, R. C.
- *Travnicek, F. G.

THAYER

ALEXANDRIA—
- Newell, H. J.

BYRON—
- Decker, R. F., Sec.-Treas.

CARLETON—
- Douglas, V. D., Alternate, Censor

CHESTER—
- Mullikin, D. B.

DESHLER—
- Reed, Paul A., President, Censor

DAVENPORT—
- Mountford, F. A., Vice President, Delegate
- Snowden, C. C., Honorary

HEBRON—
- Panter, S. G., Jr., Censor

NUCKOLLS

NELSON—
- Ingram, J. E., Delegate

SUPERIOR—
- McMahon, C. G., President
- Mason, C. T., Alternate
- Trowbridge, J. A., Sec.-Treas.
- Webman, A. I.

FILLMORE

EXETER—
- *Huber, Paul J.
- Wiggins, W. S., Vice President, Censor, Deceased 8-19-45

FAIRMONT—
- Ashby, A. A., President, Alternate

GENEVA—
- Bixby, J., Delegate, Censor
- Hickman, J. C.

MILLIGAN—
- Smrha, V. V., Sec.-Treas., Censor

SHICKLEY—
- Anderson, A. N.

AMARILLO, TEXAS—
- Wegener, Karl F. E. U. S. Vet. Adm.

NORTHAMPTON, MASS.—
- Albertson, Miriam A. 58 Paradise Rd.

JEFFERSON

DAYKIN—
- Humphrey, H. H., President

FAIRBURY—
- *Ainlay, G. W.
- Heath, Geo. A.
- Hughes, D. O., Censor, Delegate
- Kantor, D. B., Sec.-Treas., Censor
- *Luce, R. P.
- *Lynch, Geo. M.
- Lynch, J. H., Vice President, Alternate, Censor
- Powell, M. J.
- *Shupe, Lester

CLAY

HARVARD—
- Nutzman, C. L. Denver 2, Colo.
- Pinckney, C. E.
- Hurley, N. M.

SUTTON—
- Nuss, H. V., President, Sec.-Treas., Censor, Delegate
- *Richter, D. A.

ONG—
- Asa, O. C., Vice President, Alternate, Censor

EIGHTH DISTRICT

O. W. FRENCH, Councilor

SHERIDAN

GORDON—
Anderson, John S., Alternate

HAY SPRINGS—
Swenson, S. A.
*Wolf, W. K.

RUSHVILLE—
Hook, R. L., Delegate
*Sullivan, P. J.

BOYD

LYNCH—
Kriz, R. E., President

SPENCER—
Bradley, E. B.

KEYAPAHA
ROCK

BASSETT—
Panzer, H. J.

HOLT

ATKINSON—
Douglas, W. J.
McKee, N. P.

CHAMBERS—
Gill, James W., Delegate

O'NEILL—
Brown, J. P., Sec.-Treas.
French, O. W.

STUART—
Clark, F. J.

BROWN

AINSWORTH—
Brady, R. R.
Lear, W. D.
Rasch, A. G.

LONG PINE—
*Prescott, Kenneth

CHERRY

VALENTINE—
Compton, A. N.
Farner, John

NINTH DISTRICT

M. O. ARNOLD, Councilor

HALL

GRAND ISLAND—
Arrasmith, W. J., Censor
*Campbell, John F.
DeMay, C. H., Delegate
Enos, A. A.
Farnsworth, Earle
Gelow, John E., Vice President
Higgins, J. E.
Hombach, W. H.
Johnson, Earle G., President
*McDermott, K. F.
McGrath, Wilmer D.
*McGrath, Wm. M.
Maggorie, Carl H.
Martin, R. D.
Newman, J. C.
Hall Co. Health Dept. (Lincoln Co.)
Phelan, L. D., Honorary
Reilly, John V., Sec.-Treas.
*Royer, Howard
*Ryder, Frank
Sherfey, Carl
Synhorst, A. P., Censor
*Watson, Donald
Watson, E. A., Censor
Woodin, J. G.
Woodruff, R. C.

WOOD RIVER—
Molzahn, A. J.

BUFFALO

ELM CREEK—
Laughlin, J. W., President

KEARNEY—
*Albertson, L. C.
Edwards, C. B.
Gibbons, C. K.
Hansen, H. C.
Jester, R. F., Censor
Johnson, O. D.
Johnston, R. S.
Rose, W. E., Sec.-Treas.
Smith, Harold V.
*Wilcox, M. E.

RAVENNA—
*Dickinson, L. E., Jr.
Dickinson, L. E., Sr.
Ehlers, O. C., Alternate

CUSTER

ANSELMO—
Spivey, C. D., Vice President

ANSLEY—
Wilcox, C. W.

ARNOLD—
Burnham, F. A., Delegate

BROKEN BOW—
Bowman, C. L., Sec.-Treas.
Carothers, P. H. J.
Erickson, G. T., Censor
Koefoot, Theo., Alternate
Pennington, C. E.

CALLAWAY—
Bryson, R. D., Censor

SARGENT—
McDaniel, V. S.

DAWSON

COZAD—
Fochtman, L. H., President, Censor
Sheets, C. H., Delegate

EDDYVILLE—
Kile, J. B.

GOTHENBURG—
Harvey, H. M., Censor
Pyle, B. W.
Stevenson, E. C., Alternate

LEXINGTON—
*Anderson, A. W.
Dorwart, H. E.
Dorwart, T. Y.
*Norall, V. D.
*Olsson, P. Bryant
Rosenberg, F. J., Honorary
Wycoff, R. S., Sec.-Treas.

NEW YORK, N. Y.—
Fochtman, John T.

HOOKER

MULLEN—
Walker, D. A. (Lincoln Co.)

THOMAS
HOWARD

ST. PAUL—
Arnold, M. O., Vice President, Alternate
Hanisch, E. C., Sec.-Treas., Censor
*Wengert, D. B.

WASHINGTON, D. C.—
*Hynes, W. P.

GREELEY

GREELEY—
Brannen, J. L.

SCOTIA—
Cimfel, A. B.

WOLBACH—
Holm, A. H., Censor, President (Howard Co.)

VALLEY

NORTH LOUP—
Hamphill, W. J.

ORD—
Barta, F. A., Sec.-Treas.
*Kruml, J. G.
Miller, C. J., Vice President. Alternate
*Round, John N.
Weeks, C. W.

WHEELER
GARFIELD

BURWELL—
*Cram, Roy S.
Smith, E. J., President, Delegate

SHERMAN

LITCHFIELD—
Rydberg, C. A., President (Custer Co.)

LOUP CITY—
Amick, C. G., Censor (Custer Co.)

GRANT

HYANNIS—
Howell, W. L., Alternate, Censor (Box Butte Co.)

BLAINE

TENTH DISTRICT

H. S. ANDREWS, Councilor

ADAMS

HASTINGS—
Anderson, H. F.
Boren, A. J., Honorary
Brown, J. W.
DeBacker, L. J.
Egen, L. F.
Feese, J. P., Censor
Foote, C. M., President
*Foote, D. B.
Foote, E. C.
Grove, Howard R., Sec.-Treas.
Guildner, G. W.
*Harrington, A. E.
Jones, S. J., Honorary
*Kingsley, D. W.
*Kostal, O. A.
Latta, E. J.
Mace, John L., Censor
Pinney, Geo. L., Delegate
Rork, L. W., Censor
*Shaw, W. L.
Smith, A. A.
Swanson, L. A., Alternate
*Uridil, C. F.
Uridil, J. E.
*Weber, C. R.
Wegman, Wm. M.
Morrow, C. W.

INGLESIDE—
Bare, N. H.
St. Hosp., Abilene, Kan.
Coats, Edwin A., Vice President
*Coen, Robert A.
Davies, D. M.
Everitt, O. W.
Laird, C. R.
Marx, Johann R.
St. Chas., Ill.
*Neilsen, J. C.
O'Donnell, H. J.

KENESAW—
Nowers, W. E.

FRANKLIN

BLOOMINGTON—
Sparks, M. L., Honorary

FRANKLIN—
Bratt, Mary
Nail, F. E., Vice President, Alternate, Censor
*Rosenberg, D. S.
Smith, Hal C., Sec.-Treas., Delegate, Censor

HILDRETH—
Baker, F. L., President, Censor

HARLAN

ALMA—
Bartlett, W. C., Sec.-Treas., Delegate
Kerr, R. H., President, Alternate

WEBSTER

BLADEN—

BLUE HILL—
O'Neill, S. H., Sec.-Treas., Delegate

GUIDE ROCK—
Reed, H. S.

RED CLOUD—
Lewis, E. V., Vice President, Alternate
Lewis, Dorothy Jane
*Obert, Francis

RED WILLOW

McCOOK—
DeMay, G. A., Vice President
Donaldson, J. H.
Leininger, E. F., Sec.-Treas., Delegate
*Morgan, D. H.
Willis, J. M., Censor
Shank, F. W., President

LEBANON—
Bartholomew, W. S.

ARLINGTON, VA.—
*Brimmer, K. W.

HAYES
DUNDY

BENKELMAN—
Lewis, N. H.
Morehouse, G. A., Delegate
Premer, J. F., Censor

CHASE

IMPERIAL—
Hoffmeister, G. F.
Smith, Fay, Delegate

WAUNETA—
Carlson, C. R.

HITCHCOCK

CULBERTSON—
Jones, R. T., Delegate

PALISADE—
Fellers, A. B.
Karrer, F. M.

STRATTON—
Brown, L. B.
*Brown, Kenneth W.

TRENTON—
Prest, J. E.

FRONTIER

CURTIS—
Magill, Van H., Delegate, Censor

EUSTIS—
Rosenau, O. P., Censor (Dawson Co.)

MAYWOOD—
Mills, B. I.

KEARNEY

MINDEN—
Abbott, C. E. (Adams Co.)
Abbott, Hodson A. (Buffalo Co.)
Andrews, H. S. (Adams Co.)
*Sutton, Bruce B.

FURNAS

CAMBRIDGE—
Minnick, Clarence, Delegate

OXFORD—
Evans, C. D., Jr.
Smith, A. J.
(Phelps Co.)

GOSPER

ELWOOD—
Clark, G. A., Censor
(Dawson Co.)

PHELPS

BERTRAND—
Clark, G. W., President

HOLDREGE—
Best, Robert, Censor
*Brewster, Donald E.
Brewster, F. A.
Brewster, F. W., Censor
*Foley, Thos. H.
McConahay, H. A., Alternate, Censor
*Matson, Roy M.
Peterson, Theo. A., Delegate
*Reeder, Robert C.
Reiner, Walter M., Vice President
*Shreck, H. W.
Shreck, W. A., Sec.-Treas.

ELEVENTH DISTRICT

J. B. REDFIELD, Councilor

LINCOLN

BRADY—
*Schneider, A. L.

NORTH PLATTE—
Anderson, Joel, President, Censor
Callaghan, A. J.
*Clarke, H. L.
Dent, G. B., Delegate
*Dent, T. E.
Drasky, Stanley
Fetter, E. W.
Heider, C. F.
*Hirschfeld, Beryl
*Hudgel, L. E.
Kerr, T. J., Censor
Kreymborg, O. C., Censor
*Long, Fred
McDonald, H. A.
McGraw, Harriett, Vice President
*Millhouse, J. H.
Redfield, J. B.
Reeves, A. E.
*Shaughnessy, E. J.
Stevenson, Ed, Sec.-Treas.
Valentine, L. F., Alternate
Walker, H. H.
*Waltemath, G. F.

SUTHERLAND—
Moore, Harlan E.

LOGAN

STAPLETON—
Carr, E. F.
(Lincoln Co.)

McPHERSON DEUEL

CHAPPELL—
Colman, A. C.

GARDEN

LEWELLEN—
Morris, D. F., Honorary
Vesely, Francis V., Censor

OSHKOSH—
Morris, Geo. H.
Seng, W. G., Sec.-Treas., Alternate

KEITH

OGALLALA—
Harvey, E. A., Vice President, Delegate
*Vandiver, H. A.,
Weyer, S. M., Censor

PERKINS

GRANT—
Bell, F. M., President
Colglazier, E. E., Censor

TWELFTH DISTRICT

GEORGE W. PUGSLEY, Councilor

SCOTTS BLUFF

GERING—
*Gentry, W. Max
Gentry, W. J., Delegate
Harvey, W. C., President
Shike, W. E., Censor

MINATARE—
Karrer, R. W.

MITCHELL—
*Ohme, Kenneth
Watson, C. R., Censor

MORRILL—
Prentice, O. D.

SCOTTSBLUFF—
Baker, Ellis E.
Baker, Paul Q.
*Campbell, Louis S.
Cooper, A. L.
Dunham, L. H.
Franklin, W. S., Vice President
Griggs, E. E., Censor
*Hanna, Joe T.
Herhahn, Frank T.
Hodnett, W. P.
Lovett, Ivan C.
Malott, R. J.
Rasmussen, N. H.
Riddell, Ted E.
*Rosenau, John A.
Schrock, J. B., Sec.-Treas.
Stoops, J. N., Censor

BOX BUTTE

ALLIANCE—
Broz, J. S.
Burnham, A. G., President
Hand, Geo. J., Censor
Johnston, G. F.
*Kennedy, J. F.
*Kuncl, Joseph K.
*Morgan, R. J.
Seng, O. L., Sec.-Treas.
Slagle, C. E., Delegate
*Sorensen, C. N.
Suegang, F. P., Censor
Whitehead, E. I.

DAWES

CHADRON—
Courshon, A. J., President
*DeFlon, Eric G.
Griot, A. J., Vice President
Hoevet, L. H., Censor
McDowell, M. B., Censor
Pierce, C. M., Sec.-Treas.
*Sinclair, Roy D.

CRAWFORD—
Ivins, R. L., Censor

CHEYENNE

DALTON—
Pankau, J. B., Vice President

SIDNEY—
*Bitner, C. U.
*Bush, Stuart K.
Cook, Hull A., Alternate, Sec.-Treas., Censor
Dorwart, Clinton B., President
Grimm, B. H., Delegate
Mantor, Hugh E.
Seattle, Wash.
Roche, R. E.

KIMBALL

BUSHNELL—

KIMBALL—
*Lipp, Frank E.
Manganaro, C. J.

WASHINGTON, D. C.—
Miller, A. L.
Suite 101,
House of Representatives

SIOUX MORRILL

BAYARD—
Doher, T. L.
(Scotts Bluff Co.)
*Pugsley, G. W., Jr.
Pugsley, G. W., Sr.
(Scotts Bluff Co.)

BRIDGEPORT—
Blackstone, H. A., Alternate
(Scctts Bluff Co.)

SIMPLE, RAPID METHOD FOUND TO DETECT SICKLE CELL ANEMIA

Sickle cell anemia, as great a masquerader as syphilis, predominantly a disease of Negroes, can be detected simply, rapidly and accurately by new tests devised by two New Orleans physicians. They call the method the "diagnostic parameter."

Travis Winsor, M.D., and George E. Burch, M.D., New Orleans, describe in The Journal of the American Medical Association of November 17 the two tests by which they discovered 27 cases of sickle cell anemia, a peculiar red cell deformity, among 612 consecutive Negro patients tested routinely for the last two years on admittance to Charity Hospital for treatment. The two methods, the aeration-tourniquet test and the oxygen-carbon dioxide test, both help to measure the sedimentation rate of the blood. If the difference in the sedimentation rates between the treated and untreated blood, which is an important process in the tests, is greater than 20 millimeters in the first test and 27 millimeters per hour in the second method, then the chances are 98 in 100 that the patient has sickle cell anemia.

The authors say that since "sickle cell anemia is such a great imitator and because it may remain so subtle, it is necessary . . . as in syphilis, to study the blood routinely for sickle cell anemia in all Negro patients."

Usually, the doctors warn, this disease masquerades for such diseases as rheumatic fever, tuberculosis, Hodgkin's disease and acute surgical diseases of the abdomen. Because surgical procedures are dangerous in patients suffering with this disease and there is necessity for quick and accurate diagnosis, the authors recommend this "diagnostic parameter" method as highly reliable.

The disease is marked by chronic anemia, a quantitative or qualitative deficiency in the blood, of unknown cause, which is confined almost entirely to the Negro race, is hereditary and is characterized by the red blood cells of the patient acquiring a sickle-like shape. Patients with this disease frequently have chronic ulcers of the legs and pains in the joints. There is usually abdominal pain and fever is common from time to time.

The authors concluded that "the change in hematocrit reading following the treatment of sickle cell anemic blood with carbon dioxide is of diagnostic value. In no instance did the diagnostic parameter give a false response. This is particularly important in view of the fact that it is a rapid procedure and therefore of great value in the management of acute medical and surgical problems among Negro patients."

There is no effective treatment of the disease except blood transfusion in the anemic stages, and, if possible, correction of the anemia.

ROSTER OF NEBRASKA PHYSICIANS IN MILITARY SERVICE

As of December 15, 1945

* Killed in action ** Released from Service † Died

ADAMS COUNTY
Anderson, Martin F., Hastings
**Coen, Robert A., Ingleside
Foote, Donovan B., Hastings
Harrington, A. E., Hastings
Kingsley, D. W., Hastings
Kostal, Otto, Hastings
**Nielsen, Juul, Ingleside
Shaw, W. L., Hastings
Uridil, C. F., Hastings
Weber, C. R., Hastings

BOONE COUNTY
Higgins, J. P., Albion

BOX BUTTE COUNTY
Kennedy, J. F., Alliance
**Kuncl, Joseph, Alliance
Morgan, R. J., Alliance
Sorensen, C. N., Alliance

BROWN COUNTY
Prescott, Kenneth E., Long Pine

BUFFALO COUNTY
Albertson, L. C., Kearney
Dickinson, L. E., Ravenna
Hayes, C. B., Kearney
Wilcox, M. B., Kearney

BURT COUNTY
Lukens, Isaiah, Tekamah

BUTLER COUNTY
Burdick, D. E., David City

CASS COUNTY
Anderson, R. R., Nehawka
**Eaton, Wilbur S., Plattsmouth
Kunkel, L. N., Weeping Water
Formanak, C. J., Murdock
Worthman, H. W., Louisville

CHEYENNE COUNTY
Bitner, C. U., Sidney
Bush, Stuart K.

CLAY COUNTY
Richter, Donald A., Sutton

COLFAX COUNTY
**Myers, H. D., Schuyler
Tepley, Gene L., Howells

CUMING COUNTY
Krause, Richard A., West Point
Robbins, H. M., West Point
Thompson, L. L., West Point

CUSTER COUNTY
Koefoot, Ted, Jr., Broken Bow
Leonard, Patrick, Broken Bow

DAWES COUNTY
Anderson, A. W., Lexington
DeFlon, Eric G., Chadron
McElligott, E. W., Chadron
Sinclair, R. D., Chadron

DAWSON COUNTY
**Norall, V. D., Lexington
Olsson, Paul Bryant, Lexington

DEUEL COUNTY
**Smith, N. R., Big Springs

DIXON COUNTY
Coe, C. Max, Wakefield

DODGE COUNTY
Byers, R. C., Jr., Fremont
**Merrick, A. J., Fremont
Morrow, H. H., Fremont
Sobota, J. E., North Bend

DOUGLAS COUNTY
**Holden, W. J., Elkhorn
OMAHA
Alliband, Geo. T.
Arnsten, L. L.
Avery, Hiram Henry
Bantin, C. F.
Barber, Herbert Gordon
Barr, Joseph Harold
**Best, R. Russell
Bowers, Warren F.
Brazer, John C.
**Burns, B. C.
Carp, Oscar, Int.
Cash, Paul T.
Cochran, Robt. M., Int.
**Cohen, Louis Allen
**Comine, Jos. J.
Crawford, Wm. Henry
Crynes, S. F.
Curti, Ralph Elmer
**Day, Robt. Jerome, Int.
Deakin, Thos. Wm.
**De Long, Henry Livesey
Dolce, Daniel D., Int.
**Donelan, James P.
Dornberger, G. R.
Dowell, D. A.
Downing, John Edwin
**Dworak, Henry L.
Everitt, Neill J.
Faier, Samuel Z.
**Fellman, Abe C.
Finegan, Jas. F.
Fogarty, Chas. James
Freymann, J. J.
Gatewood, John W.
**Green, M. C.
Greenberg, Maynard
**Greene, Arthur M.
Gross, Jos. J.
Green, Chas. Joseph
Haffke, Oscar William
Hansen, Clifford H.
Harms, H. H., Int.
**Hardy, C. C.
Hartford, Thos. J.
Hayes, Jack Murray
Hennegan, Geo. F.
Henrich, Leo. Chas.
**Heywood, Leo. T.
**Hirschman, J. H., Int.
Hoekstra, Clarence, S., Int.
**Holmes, W. E.
**Horwich, Joe Maurice
Hubenka, A. H.
Hungerford, Wm. E.
**Iwersen, Frank J.
Jensen, Werner P.
Jonas, A. F.
**Kelley, J. Whitney
**Kelley, Wm. E.
Kemp, Wm. T.
Kiltz, Richard Clyde
Klabenes, Frank J.
Knauff, Harry A., Int.
**Korth, Zeno N.
Koutsky, Jas. John, Int.
Krieg, Jacob J., Int.
Le Mar, J. D.
Levine, Victor E.
Lewis, Raymond G.
Lierman, C. E., Int.
Longo, Jos. A.
**Mackenbrock, F. C.
Mangiameli, Carl L.
**Mangimelli, Saml. T.
Martin, Paul J.
**McLaughlin, Chas. W.
**Millett, Clinton C.
**Moran, C. S.
Mooater, Chas. J., Int.
Morrow, Paul
**Muldoon, John H.
Murphy, Albert V.
Nelson, Floyd
Nemec, Edward Chas.
Nurenberger, Robt. E.
**O'Brien, Donald J.
Owen, D. R.
Patton, John Erwin
Peterson, Wendell Case
Plechas, Nicholas Peter
**Popelar, M. V.
Penry, Richard E., Int.
Rasgorshek, R. H.
**Read, Paul
**Redgwick, J. P.
Reiner, Walter M., Int.
**Rose, Forrest I.
Schaefers, Richard Henry
Senter, Vance E., Int.
Shamberg, Alfred H., Int.
**Staubitz, H. F.
**Steinberg, M. M.
*Stokes, Harry B.
Strand, Clarence Johnson
**Tamisiea, John A.
Taylor, Willis
Thompson, C. Edward
**Tompkins, Chas.
**Townley, Robt. Hadley
Vroman, Donald Clay
Waters, C. H., Jr.
**Weinberg, J. A.
Wendland, John P.
**Wilson, Donald J.
Wright, W. D.
**Wyrens, Raymond J.
**Young, Geo. Alex., Jr.

FILLMORE COUNTY
**Huber, Paul J., Exeter
Tucker, John G., Milligan

FRANKLIN COUNTY
Rosenberg, Davis Sam, Franklin
Williams, Martin P., Franklin

FURNAS COUNTY
James, Louis D., Oxford

GAGE COUNTY
Brown, R., Beatrice
Bryant, A. R.
**Elias, Houghton F., Beatrice
McCleary, D. P., Beatrice
Rathburn, S. M., Beatrice
Rush, Weaver A., Beatrice
Smartwood, F. M., Adams
Waddell, Wm., Wayne

GARFIELD COUNTY
**Cram, Roy S., Burwell

GREELEY COUNTY
**Kafka, A. J., Scotia

HALL COUNTY
Campbell, John F., Grand Island
Johnson, E. George, Grand Island
McDermott, K. F., Grand Island
McGrath, W. M., Grand Island
Rich, Edward W. L., Grand Island
**Royer, Howard, Grand Island
Ryder, Frank D., Grand Island
**Watson, Donald P., Grand Island

HITCHCOCK COUNTY
Brown, Kenneth W., Stratton

HOOKER COUNTY
Buhl, Clayton Edwin, Mullen

HOWARD COUNTY
Hynes, W. P., Washington, D. C.
Wengert, D. B., St. Paul

JEFFERSON COUNTY
Ainlay, Geo. W., Fairbury
Lynch, Geo. M., Fairbury
Luce, Roscoe P., Fairbury
Shupe, Lester L., Fairbury

JOHNSON COUNTY
*Prachar, Gordon, Tecumseh

KEARNEY COUNTY
Sutton, Bruce, Minden

KIMBALL COUNTY
Lipp, Frank E., Kimball

KEITH COUNTY
Vandiver, H. A., Ogallala

KNOX COUNTY
Carrig, M. H., Bloomfield
Green, Carl Raymond, Niobrara

LANCASTER COUNTY
LINCOLN
Arnold, C. H.
Anderson, Jas. B.
Bartholomew, P. H.
Baskin, Abraham H.
Calhoun, O. V.
Campbell, W. Allen
Colbert, Morgan R.
Crook, Glen Delroy
Elliott, Clarence
Everett, H. H., Jr.
Fechner, A. H.
Ferciot, C. F.
Frazier, M. D.
Garlinghouse, Richard
Gibson, L. V.
Gray, Richard
Greer, Rex E.
Haentzschel, L. E.
Haley, Robert R.
Harvey, Glen W.
Heidrich, John Paul
**Hobbs, E. T.
Johnson, R. W.
Lotman, Harry Alfred
Loudon, J. R.
Marx, Paul Donald
Merideth, John A.
Miller, N. R.
**Miller, S. D.
Morton, H. B.
**Munger, Horace
Neely, J. Marshall
Palmer, R. B.
Peterson, J. C.
Podlesak, J. J.
Reed, E. B.

Rembolt, R. R.
Rider, Larry D.
Reynolds, Verne J.
Royal, Paul
Sharrar, Lynn E.
**Snipes, J. J.
Stein, Robt. J.
**Still, Richard M.
**Taborsky, A. F.
**Teal, Frederick F.
**Teal, Philip
**Underwood, G. R.
**Whitham, R. H.
William, Russell I.
Wood, M. A.
Zinneman, H. H.
LINCOLN COUNTY
Anderson, Gustave Theodore, N. Platte
Anderson, Thorwald R., N. Platte
Clarke, H. L., Jr., North Platte
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Long, Fred P., North Platte
**Millhouse, John H., North Platte
†Redfield, J. J., North Platte
Schneider, Albert L., Brady
Shaughnessy, E. P., North Platte
Waltemath, Glenn, North Platte
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OUR MEMBERS IN THE ARMED FORCES

The Journal is desirous of supplying the latest information about the members of the Nebraska State Medical Association in the Armed Forces. Data will be brought up to date as information is received. Readers are urged to cooperate in this effort. Drop a postcard to the Editor, 220 Medical Arts Building, Omaha.

Commander G. R. Underwood is home on terminal leave in Lincoln.

Dr. Glen F. Waltemath, North Platte, received his discharge from the navy on November 20.

Dr. W. K. Wolf, following four years of military service, has located at Hay Springs.

Dr. H. D. Myers, on terminal leave until January 15, has resumed his practice at Schuyler.

Dr. Wilbur Johnson, who spent 44 months in the Pacific theater, has entered practice at Valentine.

Dr. Lester L. Shupe, formerly of Fairbury, is on terminal leave, and has located in Caldwell, Idaho.

Dr. P. W. Berney, who enlisted in the army in 1943, has received his discharge and is locating in Columbus.

Dr. Melville Popelar was recently released from the U. S. Armed Forces as a lieutenant colonel in the medical corps.

Dr. D. H. Morgan has announced the resumption of his practice in McCook. He was recently separated from the navy.

Dr. S. H. Brauer has returned to his practice in Norfolk after serving three years in the army, twenty months of which was overseas duty.

On terminal leave from the Army Medical Corps is Major Roy Matson. The doctor expects to take postgraduate work before entering practice.

Dr. Richard W. Homan, who practiced at Bellwood before entering military service, has been separated from the army and is practicing at Crete.

Major D. P. McCleary has arrived in the states after 2½ years in the South Pacific. The doctor was formerly connected with the Waddell Clinic at Beatrice.

Dr. H. I. Stearns who was called to active duty in the Air Corps in October, 1939, was placed on terminal leave in September. The doctor will open an office in Cambridge, Nebr.

Captain Lucien Kavan, M.C., of Clarkson, Nebr., was one of 64 medical officers who recently completed the aviation medical examiners course at the A.A.F. School of Aviation Medicine, Randolph Field, Texas.

Word has been received that Major J. R. Louden arrived in the United States on November 21 after 30 months in the Southwest Pacific. The doctor expects to be discharged soon and will resume his practice with the Olney Clinic, Lincoln.

Colonel Charles O. Bruce of Lincoln was recently assigned to the ground medical section, Army Ground Forces, with headquarters in Washington. Colonel Bruce is a graduate of the University of Nebraska College of Medicine. He served with Allied Force Headquarters in the European theater of war. He was awarded the Legion of Merit, the Brazilian war medal and the Order of the Crown of Italy.

ON THE OMAHA SCENE:

Dr. M. C. Green has been released from the navy and has resumed his practice at 454 Aquila Court.

Dr. Joseph J. Comine, released from military service, has resumed his practice at 820 Medical Arts Bldg.

Dr. Arthur M. Greene, who entered military service in May, 1941, is now practicing at 629 Medical Arts Bldg.

Dr. Herbert F. Staubitz, recently released from service, is temporarily practicing at the Benson Medical Center.

Dr. Walter J. Holden has returned to Elkhorn, Nebr., to practice, after serving in the army since December, 1941.

Dr. Abe C. Fellman, who served with the United States army, has opened an office at 316 City National Bank Bldg.

Dr. Clinton C. Millett, now separated from the service, announces the opening of his office at 442 Aquila Court Bldg.

Dr. Clarence S. Moran has located at Mitchell, South Dakota. The doctor was recently separated from the armed forces.

Dr. C. W. McLaughlin, Jr., has been separated from the service and is reestablishing his practice at 1530 Medical Arts Bldg.

Dr. Clyde C. Hardy, recently released from the army, has become associated with Dr. Frances L. Simonds at 1216 Medical Arts Bldg.

Dr. James P. Donelan, separated from the navy, has returned to his former position as Medical Director of the Guarantee Mutual Life Insurance Co.

Upon his release from the navy, Dr. Frank J. Iwersen has become associated with Dr. W. L. Sucha, 915 Medical Arts, in the practice of orthopedics.

Dr. William E. Holmes, since his return from military service, has been reappointed Health Officer for the Scottsbluff County Health Department, Gering, Nebr.

Drs. William E. Kelley and J. Whitney Kelley have been separated from military service; Dr. Whitney Kelley will resume his practice at 1104 City National Bank Bldg.

Among those now on terminal leave from the armed forces are Drs. Henry L. DeLong, B. C. Burns and Paul S. Read. Dr. Read expects to resume his practice at 2415 Fort Street about the first of the year.

DEATHS

Triplett, John Marshall, Chapman. Born in Illinois in 1867. Graduated from Lincoln Medical College in 1909. Practiced for a short time at Fairfield, then went to Chapman in 1910. Died November 4, 1945. Surviving are two children.

Simlacek, Joseph, Swanton. Born in Czechoslovakia in 1866. Arrived in the United States at the age of 17; came to Wilber in 1988 as director of the Wilber Sokol. In the early nineties he entered Rush Medical College and graduated in 1894. Dr. Simlacek always showed a keen interest in professional and community affairs. Death came November 2, 1945, at the home of his daughter, Dr. Angeline Simlacek of New York. Surviving besides Dr. Angeline is a son, Dr. Victor Hugo, now serving in the United States army medical corps.

Strand, Clarence, formerly of Kearney. Born in 1904. Graduated from University of Nebraska 1932. Served as a major in the medical corps at Bataan where he was captured by the Japanese. According to the news received by his parents, Dr Strand died in a Japanese prison camp in October, 1944.

Peters, Roy Elliott, Wymore. Born in Illinois in 1895, graduated from Loyola University School of Medicine in 1915. Died November 29, 1945 in a Lincoln hospital. Surviving is a son, Roy, who lives in Thedford.

Mullins, Charles L., Phoenix, Ariz. Graduated from Omaha Medical College in 1891. Practiced in Gretna, Eagle, Ansley and Broken Bow, Nebr. He left the state in the early twenties and moved to Phoenix, Ariz., to engage in fruit raising. Dr. Mullins had been in poor health for several months. He was found dead in an orange grove near his home, October 28, 1945. Surviving are Dr. Thomas P. Mullins, dentist at Chadron, Nebr., and Brig. Gen. Charles L. Mullins in command of the 25th division in the recent Philippine campaign.

Mack, Alonzo E., Glendale, Calif. Born in 1869. Graduated from Creighton University School of Medicine 1896. Practiced in Omaha from 1906 to 1922 when he moved to California. Died November 20, 1945. Survivors are his wife, two sisters and a brother.

HUMAN INTEREST TALES

Communications bearing human appeal are solicited. They should be addressed to The Editor, Nebraska State Medical Journal, 220 Medical Arts Bldg., Omaha.

Dr. A. J. Kafka of Scotia has moved to Denver, Colo.

Dr. David Stonecypher, Nebraska City, addressed the Auburn Kiwanis Club members recently.

Dr. O. P. Rosenau spoke on public health before a meeting of the Eustis Izaak Walton Chapter in October.

The sympathy of the Journal is extended to Dr. E. A. Harvey, Ogallala, upon the recent death of his father.

Dr. A. E. Bennett, Omaha, addressed members of the Women's Inter-Club Council on Mental Hygiene Needs in Nebraska.

Dr. Herbert F. Anderson, Hastings, recently completed a course in bronchoscopy at the University of Illinois School of Medicine.

Dr. Harry J. Newell who has practiced in Alexandria and surrounding territory for 42 years, has retired because of ill health.

Dr. A. H. Webb, Lincoln, recently discussed "Doctor-Patient Relationships" before the Interprofessional Men's Club at the Lincoln Hotel.

Dr. W. J. McMartin, Omaha, was named secretary-treasurer of the American Urological Association at a recent meeting in Kansas City.

Because of ill health, Dr. Lionel B. Brown has temporarily retired from the practice of medicine at Stratton and has gone to San Maria, Calif.

Dr. R. R. Brady has returned to Ainsworth after completion of a month of postgraduate study in urology at the Cook County School of Medicine.

Dr. George Stafford, upon his separation from military service, has become associated with Dr. E. W. Hancock in the practice of pediatrics in Lincoln.

Dr. J. C. Nielsen, superintendent at the Hastings State Hospital, addressed the Lions Club members in November. His subject was "Mental Hygiene in the Military."

Dr. Frank A. Burnham of Arnold addressed members of the Business and Professional Women's Clubs on the Complications of Hypertension, at their November meeting.

Dr. Charlotte Seiver of Fremont conducted a program of visual education with motion pictures of "Our State Health Department", at a recent dinner meeting of the local Altrusa club.

Dr. Robert H. Fishbach, graduate of University of Nebraska College of Medicine in 1940, and with the U.P.H.S. in Honolulu, Hawaii, since that time, will practice medicine in Portland, Ore.

INFECTED EAR, NOSE, THROAT TREATED SUCCESSFULLY WITH PENICILLIN

The application of penicillin locally is helpful in the control of acute and subacute infections of the nose, sinuses, throat and mouth and is of occasional benefit in certain cases of chronic inflammation of the middle ear, according to Fletcher D. Woodward, M.D., and Thomas Holt, M.D., of Charlottesville, Virginia.

"In order to evaluate the local use of penicillin in infections of the ear, nose and throat," the authors state in a recent issue of The Journal of the American Medical Association, "a study of a group of patients was begun in February 1945 for the purpose of taking advantage of the seasonal peak in the incidence of upper respiratory infections. The study continued for three months. During this period approximately 500 patients were treated."

Five hundred units of sodium penicillin per cubic centimeter of salt solution was found to provide the simplest and most effective means of application. A water soluble jelly containing penicillin was useful at times for instillation into the nose at bedtime. The authors noted that to be effective penicillin must be of sufficient concentration and in constant contact with the infected tissues for a considerable time.

However, the usefulness of penicillin in the treatment of the common cold is still undetermined. A study was made of a group of 40 patients who had the early phase of the disease; 36 improved within 48 hours under this treatment. But, the authors add, "acute rhinitis varies widely in intensity and duration of symptoms, and the psychologic effect of a new drug must also be evaluated in one's conclusions. Hence, until penicillin becomes plentiful enough to treat large groups in army camps and industrial organizations, it cannot be said that topical (local) application in the early phase of acute rhinitis will or will not be of value."

PENICILLIN FOR SCARLET FEVER

The successful seven day treatment of scarlet fever patients, by the injection of 10,000 units of penicillin into the muscles every three hours, is reported in The Journal of the American Medical Association of November 17. The report reveals that this treatment is effective in rapidly eliminating hemolytic streptococci from the nose and throat within 48 hours.

Manson Meads, M.D.; M. Eugene Flipse, Jr., M.D.; Mildred W. Barnes and Maxwell Finland, M.D., with the collaboration of Ruth Drew and Alice Northrop, Boston, studied four groups of nine patients each who were admitted to the South Department of the Boston City Hospital between January and May, 1945, with scarlet fever. Each group was treated differently: Group A without sulfonamides or antibiotics, B with penicillin injections into the muscles, C with sulfadiazine taken by mouth and D by spraying the nose and throat with penicillin solution.

Summarizing the results with each group, the authors write: "In patients with scarlet fever treated with penicillin intramuscularly, hemolytic streptococci disappear from the nasal and pharyngeal cultures within 48 hours, and if the treatment is continued for seven days the original types of streptococci do not reappear.

"Penicillin solution given to similar patients by spraying the nose and throat four to six times a day has very little effect on the hemolytic streptococci in the pharynx but seems to keep the nose free from these organisms while the treatment is being continued.

"In similar cases sulfadiazine given orally in full doses for seven days results in a suppression in the numbers of hemolytic streptococci in cultures obtained during the period of treatment only."

Scarlet fever is caused by the streptococci germ which produces a soluble toxin or poison, which when absorbed into the body is believed to cause the rash of scarlet fever. It usually takes from one to two days from the time of infection to the manifestation of the disease. The disease commences with the symptoms of a severe tonsillitis, but in a day or two a multitude of minute red spots appear on the skin and also on the tongue, tonsils and throat. In mild cases the temperature begins to drop in five to seven days and the skin rash fades. The skin of the hands and feet peels off in sheets and shreds, that of the body in scales. Scarlet fever is communicated by contact.

The authors further state that the "clinical results also suggest that penicillin given intramuscularly during and for several days after the eruptive stage may minimize or even eliminate the late septic complications. . . . Furthermore, should these findings be corroborated on a large scale, the present requirement of isolation for scarlet fever patients for three or four weeks would become unnecessary, and patients could be discharged after eight or 10 days without danger of giving rise to secondary cases or of cases returning with complications."

The authors emphasize that "these conclusions are based on a very small number of cases and therefore are only tentative. They require corroboration and elaboration in a larger number of cases of various kinds of hemolytic streptococci infections."

The authors state "further developments in penicillin therapy may simplify the administration of such a program. Thus the use of penicillin X may result in the reduction in the frequency with which the doses are to be given. It may also be possible to give some of the treatment orally or in lozenges."

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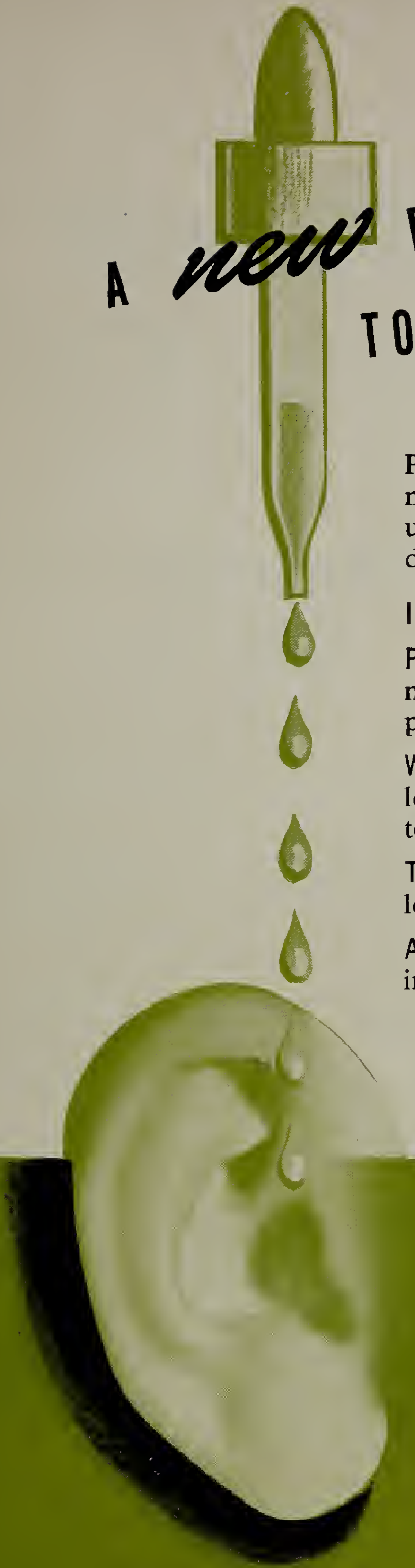

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1. Tsuchiya, H. M. et al.: Proc. Soc. Exp. Biol. and Med., *50*:262, 1942.
2. Strakosch, E. A. and Clark, W. G.: Minn. Med. *26*:276, 1943. Brown, C. et al.: Am. J. Surg., to be published.

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INTER-AMERICAN COOPERATIVE HEALTH SERVICE FIGHTS MALARIA

The Inter-American Cooperative Health Service, an organization formed as a result of a resolution adopted by the Rio de Janeiro Conference of American Foreign Ministers of 1942, is playing a vital role in the fight against malaria and other diseases. It offers the Western Hemisphere a structure wherein anti-disease campaigns can be correlated.

Writing in the December issue of Hygeia, health magazine of the American Medical Association, Major General George C. Dunham said "release of the magic crystalline insecticide DDT, which proved such a famous life-saver in the jungle warfare of the Pacific, opens up broad horizons for the extension of malaria control to rural communities of Latin America."

Approximately 12,000 citizens of 19 American Republics, including the United States, are engaged in the Americas' fight against malaria. "By far, the majority of workers in the cooperative health forces are nationals of the other American Republics," the author stated. "These include 347 physicians, 148 engineers, 126 registered nurses, 2,919 technical and clerical personnel, 1,149 practical nurses and guardas (inspectors and sprayers), and 7,777 unskilled workers. The United States complement in the international force is 238 doctors, sanitary engineers and nurses."

The Latin American countries had many natural resources which we needed during the war. Such strategic minerals as manganese, tin, platinum, and commercial diamonds and, above all, rubber came from the rich verdant countries of Latin America. However, a poisonous enemy had to be combated before these raw materials could be reached successfully—the Anopheles mosquito, the malaria carrier.

As an example of the work done by the Inter-American Cooperative Health Service, the author tells of the encouraging results obtained at the Nicaraguan capital, Managua. "Sanitary inspectors, trained by the cooperative service, canvassed homes in the city's nine malarial barrios, or districts, where they uncovered numerous Anopheles breeding pools. They instructed dwellers in the destruction of the Anopheles. A survey in these barrios conducted in 1942 showed average malaria infection of 33.03 per cent of the people examined. In 1943 another survey showed an average infection rate of 7.8 per cent, or a reduction of 76.4 per cent."

Practical measures are supplemented by education in the fight against malaria. The author stated that "press, radio and films add to the work of awakening people to the dangers of malaria and advise them on treatment."

A slight change in the intonation of a friend's voice often reveals thoughts that lie behind the spoken words, according to the Sonotone research laboratories.

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EDITORIAL

KEEP POSTED

The changing scene on our social and economic horizon is rapidly extending to include every phase of modern living. For better or for worse, and without consideration of cause or consequence, practically every institution is begnning to feel the challenge to its functions and its traditions. Government, industry, labor, education, yes, even the military organization, all find themselves under sharp public focus. The people, en masse, it seems, have suddenly acquired a consciousness toward the wheels which make the country a going concern. And since the average person frequently interprets any form of change as PROGRESS, the clamor for modification or alteration of existing practices and procedures is not too difficult to understand. The possibility that some changes may lead to deterioration seems to make little impression. The desire for prominence and power among our so-called social leaders appears to overshadow their ability to reason or their willingness to see the other fellow's point of view. They pursue a philosophy which admits that there are two sides to every problem; their's, and the wrong side!

It is neither just nor wise to assume that these men and women who are constantly urging "reforms" are a lot of self-promoting, dishonest, or racketeering individuals, seeking consciously to destroy our institutions. On the contrary, most of them are fanatically sincere in their convictions that in order to achieve happiness mankind must create a Utopia. That the human race is not ready for the millenium is no weighty argument against it, says the dreamer, and he means it. And because he means it, he is able to influence not only his immediate followers, but also to spread his ideas among the disgruntled, the credulous, and the neutral elements of our population.

The propaganda to socialize medical practice is a good illustration of this one-sided philosophy. By their own volition these visionaries never miss the opportunity to tell the public of the marvelous strides medicine has made in past decades. They have no quarrel with the individual doctor, his attitude to his patient, or the role he plays in the life of the community. They frequently protest that the average physician today works too hard and earns too little for the time and cost he put into his profession. Many of these false prophets insist that government control of medical practice would be a blessing for the rank and file of physicians and surgeons who in pre-war times had a struggle maintaining their offices and their families! Through a mist of crocodile tears they plead for the poor, stubborn doctors who in the future may again experience a hard time making a living, and for the millions of poor and middle class people who under the present system of practice suffer from want of medical care!

Hitler propounded the dictum that the greater the lie the greater was the likelihood of its being accepted as truth. Hitler is dead (we hope), but he seems to have left this diabolical axiom as a legacy to the uplifters of this country who to all appearances have no hesitancy in utilizing it in the attempt to cram government "benefits" down the throats of the American people. Medicine has proven itself historically as a proper desensitizing agent to socialistic allergic reactions. Notable "success" with it was obtained by Bismarck in Germany and by Lloyd George in Great Britain. Unfortunately these giants in the political and reform movements did not live to see the social and economic destruction wrought by the results of their initial experiments in paternalism. In an era before communism and fascism had raised their ugly heads, these gentlemen were considered statesmen whose self-appointed mission it became to have the government provide for the "common man." That the government, far from providing for, ultimately consumed the common man, never entered the super-mind of these social leaders. They were too much pre-occupied with the preservation and extension of their own existing powers to foresee the catastrophic effects of their panaceas on the future of their respective countries.

Today in Washington there is a group which is doing its utmost to talk the American people into accepting "health security" through compulsory insurance. Aside from being too expensive for the benefits proposed, the program carries with it dangerous political implications, which like their European counterparts may bring destruction to our established social order. History seldom fails to repeat itself.

The duty of the physician in this field is clear. Both as a member of his county medical society and as personal advisor to the patients under his care he must make every effort to reach individuals and groups in his community and interpret the significance of the proposed experiment in its true light. To do this effectively the physician himself must keep pace with developments not only in social welfare circles but also those in his own spheres of activity. The Organization Section of the Journal of the American Medical Association and the editorial section of this Journal carry information which could be utilized not only as material to discuss informally with patients and friends, but as well in conducting round table conferences, PTA meetings, noonday luncheon clubs and many other similar groups, the members of which are not only interested in the subject of health and medical care for themselves and their families, but as well in the future of their country. This interest must now be enhanced, for it is no longer a matter of the health and security of the individual or the group. The future of the nation as a whole is at stake.

MEDICAL CARE OF VETERANS OF WORLD WAR II

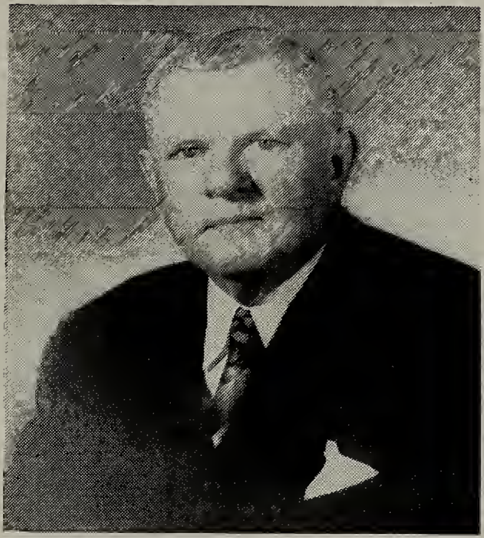
In many communities throughout the land physicians are already confronted with the problems of medical care of the veterans of World War II. Some of the problems pertain to our academic training and clinical judgment. The diagnosis and treatment of tropical diseases call for methods and procedures with which the average physician must familiarize himself anew in order to render adequate service to the veteran suffering from malaria, hookworm, filariasis, or any other of a number of diseases generally accepted as indigenous to the tropical countries where he served. To these pathologic entities must be added the various organic and functional disabilities knowingly or unknowingly acquired over months, and in some instances, years of severe physical strain and profound emotional stress demanded by active military duty.

Service-connected disabilities requiring in-hospital care, when certified by the Veterans Bureau will, in time, be a minor problem to the individual physician, since according to present plans ample bed-space will be made available through construction of new hospitals, addition of wings to existing facilities, or through contracts with local private or community hospitals.

The two major problems now challenging the medical profession are: 1. The unemployed veterans who are suffering from illness not related to their military service or where members of family become ill and funds for necessary care are limited or entirely lacking. Among this favored group there will undoubtedly be some who by a process of illogical reasoning will make a concerted effort to connect the condition with his military experience. Though such a tendency is quite understandable, it adds little to the aid of the doctors dilemma in dealing with the patients. A combination of tact, understanding, tolerance, and an appreciation of the earthly attributes of his fellowman will give the physician a working perspective so essential in maintaining a wholesome doctor-patient relationship.

2. The out-patient care to veterans is now, and should continue to be supplied by the family doctor on an individual, private basis. The advantages of this system over that which followed World War I are too obvious to require elaboration. The immediate problem lies in the practical administration of the present program. Thus far, it is true, there have been few complications of a serious nature. However, with the rapid-

(Continued on p. 44)



Charles McMartin, M. D.

The establishment of a State Health Council should be of interest to our State Association. This matter will be brought to the attention of the State Council at their Mid-winter meeting this month.

A number of states are already organized and in co-operation with the National Health Council.

Such a council should be a voluntary affiliation with state medical associations of all health organizations and agencies. The co-operation of these various groups would simplify the many health problems of the community and prevent duplication of effort. We hope such a council may be formed in Nebraska in the near future.

Yours sincerely,
CHARLES McMARTIN, President.

ly progressing number of discharged service men and women, the systematization of the administrative organization becomes a patent necessity.

Major General Hawley of the Veterans Administration in Washington in an address before the House of Delegates of the American Medical Association in December urged that State Medical Societies organize special facilities which would enable them to assume responsibility for the administration of the program. It is only through cooperation of organized medicine that the veteran may preserve the privilege and the opportunity to employ the physician of his own choice. The role of the individual physician in this plan is apparent. It can succeed only through his honest, whole-hearted endeavor. It must succeed. We cannot let the veterans down.

1946 YEAR FOR ACTION

1945 was American medicine's year of decision.

1946 is American medicine's year for action. In 1945 the Fourteen Point Constructive Program for Medical Care was proposed by the Council on Medical Service and Public Relations, approved by the Board of Trustees, and sanctioned by the House of Delegates in its amplified form.

Now 1946 must see this program put into action. That will be one of the chores of the Council. Two other tasks placed specifically on the Council by the House of Delegates are:

1. Organization and incorporation immediately of a National Health Congress representative of the medical, dental, hospital, nursing, pharmaceutical, and allied professions.
2. Development of a specific national health program, with emphasis on the nationwide organization of locally administered prepayment medical plans sponsored by medical societies.

A DIFFICULT TASK

As pointed out previously, development of a national over-all plan is difficult and some even believe a "well-nigh" impossible task. No matter how difficult the task, it is the definite, determined desire of the Council to present such a plan to the Board of Trustees, but it will take time for a specific program to be formulated. Hence, work on plans now being done by state and local societies should go forward. This is not a static problem but one as chuck full of variables as an Einstein equation. The more varied these local plans are in form, the better this may be in the long run for the most workable, over-all master plan will come finally only through trial and error evolution. This is the true scientific process. In fact here are the steps to be taken before a national program can be submitted to the public:

1. Formation of a plan by the Advisory Committee on Prepayment Medical Care of the Council.
   (This is being done by the Committee and it expects to be ready to make a preliminary report this month).
2. Presentation of program for approval of the Council itself.
3. Presentation to Board of Trustees for approval.
4. Notification of the Societies of the plan.
5. Release of the plan to the public.

To complete each one of these steps even if all goes as smoothly as is hoped will take several weeks.

BITS FROM WASHINGTON

Rumor has it that the Priest Committee in the House of Representatives will set a time for hearings on the Dingell bill shortly after the reconvening of the Congress. Commentators, including practically all of the writers of Washington letters and sources of information in Washington, indicate that the majority of the Congress is opposed to the compulsory sickness insurance features of the President's program as embodied in the Wagner-Murray-Dingell bills and that there is little possibility of the enactment of such legislation this year.

Significance is given to the fact that President Truman in his recent radio talk mentioned his health program only in connection with "other bills that are pending before Congress," and not once mentioned compulsory health insurance. Senator Taft in his answer to President Truman's original message to Congress termed the compulsory health insurance proposal of the President as communistic, and asked "can anyone be surprised that there is some delay in enacting such a left wing communistic program?"

FARM BUREAU STATEMENT AGAINST COMPULSORY HEALTH INSURANCE

At a recent annual meeting of the Farm Bureau the following statement was made in regard to rural health problems:

"One of rural America's most urgent problems is to provide a program to bring about better facilities in rural areas for hospitals, medical care and improved health. It will take the combined efforts of the medical profession and rural people to solve the problem.

"The solution must provide for comprehensive health education for well trained doctors, dentists, nurses, technicians and laboratory scientists, as well as the establishment of Public Health Centers, hospitals and clinics accessible to all sections of rural America.

"The care of our former service men and women, of the mentally sick and the indigent and the control of communicable disease is a public obligation and should be supported from public taxation. In some communities, after careful surveys it may be found advisable to use Federal grants-in-aid to assist groups to errect and equip hospitals. These must be controlled by the local people themselves.

"We believe in the extension of voluntary group prepayment services on some type of an insurance plan that provides greater flexibility and would be more likely to succeed over a wide area than rigid uniform plans on a compulsory basis. We believe that a plan which will provide for prevention as well as curative measures and the right of the free choice of doctors should be zealously guarded."

A Review of Sedation

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The term sedative is used for agents causing depression of the central nervous system. This general term in no way indicates the depth of depression or the areas chiefly involved. Pharmacologically we divide the grade of sedation into groups, as the hypnotics, analgesics, narcotics and anesthetics, in order to logically use medication to fit the needs of the patient. Because the term sedation is so loosely used, physicians do not always realize that wise choice is necessary to get the best effect and to prevent side reaction or chronic poisoning which may occur from some of these agents.

The bromides, which, given at our normal dosage levels are placed in the class of hypnotics (which emphasizes sleep). They depress the psychic functions leading to mental dullness which conduces to sleep. They also depress the motor cortex and cord with diminished reflexes but the depression of the sensation of pain is slight and painful conditions may prevent their action. Because they produce mental dullness with the sense of calmness they are still much used in nervous hyperexcitability, such as hysteria or nervous breakdown. Bromides were the first and sole agents used to control epileptiform seizures, and were found capable of controlling about 90% of the idiopathic cases. More recently we have recognized this effect as due to depression of the motor areas, since experimentally it has been found that bromides raise the threshold 50% against electrical convulsive stimuli.

The prolonged use of bromides in nervous hyperexcitability and especially the large doses necessary in epilepsy, with the common use by the laity of certain patent medicine containing them, have not been without danger. The bromides replace chlorides in the body and tend to cumulate. Patients should be warned about the possibility of chronic poisoning, "Bromism", with its attendant symptoms (rash and mental disturbances) in which the bromide level in the blood reaches 150 mgm. percent or above. However this text book picture of Bromism is not always present. Only 13% of the cases develop rash, and routine examinations of patients admitted to psychopathic hospitals show that from two to ten percent have a high bromide level in the blood. In fact sometimes the mental condition clears with the elimination of the bromide.

Chloral hydrate, another of the older group, belongs to the methane series of anesthetics, but was never used for this purpose, because this depth of sedation produces a dangerous depression of the heart muscle. I can remember when it was used routinely as a sedative in D.T.s until statistics proved it was a dangerous drug in old alcoholics with poor hearts. It is now used in a much lesser dose, occasionally for sleep but more often combined with bromides to allay nervous excitability. However, it has but little pain killing power. It has the disadvantage of producing Chloralism, is habit forming, and leads to mental deterioration.

Paraldehyde, another early hypnotic, has much to commend itself from a safety angle but due to its disagreeable odor, taste and difficulty of solution it has not been too popular. It acts rapidly, does not affect the heart and circulation and its only danger is in diseases of the liver and kidneys. Because it is volatile, it is partly excreted by the lung where it may add to irritation and the atmosphere of the patient's room reeks with the odor. In the hands of the expert it acts well in rectal administration with olive oil for obstetrical analgesia.

We then pass through the era of the aliphatic hypnotics comprising sulphonal, trional and tetranol which had their short popularity and went into the discard having no advantage over the agents used before them.

In 1903 we started a new class of compounds headed by the copyright preparation called veronal and later placed in the U.S.P. under the name of barbital. This compound, diethylbarbituric acid, was first considered just another hypnotic and did not receive great popularity until some years later when another derivative known as luminal (phenobarbital) came on the market. This became popular almost at once, because while barbital was a hypnotic producing mental dullness by action on the cerebral cortex with penetration deep enough to affect the diencephalon, the presence of the phenyl group added analgesia. It shortly replaced bromides in the treatment of epilepsy. Why it acted so well was proved experimentally by Merritt and Putnam. They showed that phenobarbital raised the threshold 2 to 4 times against electrical convulsive stimuli, but this dose was a grade to also produce hypnosis. This would indicate the phenyl radical produced considerable depression of the motor areas. For this reason a new drug, dilantin (U.S.P. diphenylhydantoin sodium) was produced for the treatment of epilepsy. It contains two phenyl groups without the barbiturate nucleus and is capable of raising the threshold 2 to 4 times in the same manner as phenobarbital without the accompanying depression.

This principle of replacing one of the ethyl groups in diethylbarbituric acid with a phenyl group to produce phenobarbital soon lent itself to a host of substitute barbiturates using other radicals, to name a few; alurate, amytal, dial, evipal, ipral, pentobarbital, seconal, pentothal, until every physician has his pet barbiturate. This is not entirely reduplication as we can divide them into, long, intermediate, short and ultra short acting compounds with grades of depression from hypnosis to anesthesia. This is useful in selecting a barbiturate to fill a specific need.

We soon found that the public began to use large amounts of these compounds to produce sleep. Those people who did not sleep well used them routinely. They occasionally used them to go on sprees or as a convenient means to pass to another world. Things became so bad that some means were necessary to keep the barbiturates out of the reach of the public. This led to the different states passing a Barbiturate Law. In 1931 California and North Carolina enacted such a law and in the next ten years 27 states had developed laws, but there has been rather a wide divergence in the framework and drugs included. Nebraska enacted a law in 1935, which not only includes Barbital, but also its derivatives or mixtures: Trional, Sulphonal, Tetranol, Paraldehyde and Chloral Hydrate. These can be dispensed only on prescription with no refill. Efforts are now being made to establish a uniform barbiturate law.

The Federal Food and Drug Act now has entered the picture, through their secretary sending out directives from time to time restricting the sale of drugs that are apt to be harmful, these directives have the weight of law and barbiturates now come under this act. Another indication for such a law is the use of 5,000,000 ounces of barbiturates in 1940 with 120 listed compounds containing barbiturates on the market.

Thus far we have been considering only hypnotics for the production of sleep and to calm the nervous excitability of the patient. How do we handle the mild grades of pain which accompany headache, colds, myalgias and so many common complaints? The physician and the public immediately turn to benzene compounds. We classify these agents as analgesics and antipyretics. They were first used for the reduction of fever but antipyretic power is now incidental and their analgesic action is the one desired. Analgesics built on the phenyl structure are capable of obtunding the milder grades of pain. They are of no value in traumatic pain, they do not dull consciousness or disturb tactile sense. This would indicate they have very little cortical effect and their action seems to be in the region of the optic thalami. The popularity of some of these compounds with the public is attested by the use of aspirin (acetylsalicylic acid) for 5,143,672 pounds was manufactured in the year 1937.

The pioneer of this group, acetanilid, is an acetyl derivative of aniline. It was first used as an antipyretic but in a short time its analgesic power was used as a common ingredient in patent headache powders. Its use by the public without discretion soon placed it in disrepute, as it attacked the red blood cell with the formation of methemoglobin and the resultant cyanosis. Phenacetine (acetophenetidin) was a somewhat safer agent and is still being used. A chemically juggled antipyrine first known as pyramidon and later in the U.S.P. as aminopyrine had good action and was very popular until it was made the goat as a producer of agranulocytosis. Salicylic acid being too irritating for internal use has always been given as sodium salicylate. It not only acts well as an analgesic in the complaints of mild pain but its effect on the pain and swelling of rheumatic fever has been nearly specific. Not that it cures the condition but for the comfort that is obtained. Here it is used to the point of saturation of the system, and while poisoning has occurred, fortunately in most cases it has been mild. With our minor complaints it has been replaced by aspirin.

Cinchophen will act in the same way as salicylates but since it was found in certain cases to produce liver damage many do not like to use this agent. It has always been popular to combine a barbiturate with a phenyl group compound. How much one potentates the other is open to argument. However many preparations are on the market such as allonal, cibalgine or aspirin and nembutal. The physician also uses mixtures of the phenyl compounds as illustrated by acetylsalicylic acid gr. iii, acetophenetidin gr. 11, caffeine citrated gr. i or in copyright preparations such as empirin co. or anacin.

To treat the very severe grades of pain we must use narcotics. Here morphine or its derivatives are supreme, although a recent drug demerol may be of some aid for visceral pain. Always remember we must guard against habit formation from too extended use.

SUMMARY

In our use of sedatives we must realize that these therapeutic agents act by depressing different parts of the central nervous system which give different depths of sedation, modified by the dose with some overlapping in action.

Many of our useful drugs may produce toxic effects. This does not mean that we should forego their use but that we should always keep in mind their possible reactions.

When the condition is on a nervous basis with no involvement of pain our pure hypnotics are called for.

In epileptiform seizures those which raise the motor threshold are chosen. In the mild grades of pain the analgesic group is indicated and only when there is pain of great severity the true narcotics should be employed, and then cautiously.

* * *

IN THIS ISSUE

SEDATION constitutes an important part of therapy. The sedatives utilized in the individual case must be evaluated on a physiological and pharmacological basis. The Journal requested Dr. Gerald, Professor of Pharmacology and Physiology at Creighton University School of Medicine, to compile a brief review of the nature of the important sedatives used in our daily practices. We present this paper on page........................ 45

LEAD poisoning is not an infrequent condition faced by the individual physician. Dr. Gedgoud, at a recent meeting of the Omaha-Douglas County Medical Society, presented one of the serious complications of lead poisoning and outlined the method of treatment. This paper may be read on page 48

EMERGENCIES of the Newborn is a problem which frequently taxes the resources of the medical attendant. A paper on some of these emergencies is submitted by the Editor. You may read it on page.................. 51

1945 MARKED the 50th year of the discovery of the x-ray. We have published several items in commemoration of this important event, and in this issue we present a comprehensive historical account of radiology through the courtesy of Dr. Robert S. Stone of the University of California. We are sorry that the copy is in small type, but space in this Journal did not allow the 10 point type for this lengthy article. The size of the type, however, does not detract from its interesting features. It is found on page 56

Sodium Citrate Therapy in Lead Encephalopathy

Case Report in an Infant

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In infants and children, poisoning due to lead usually follows the ingestion of lead paints or the exposure to lead fumes from burning storage battery casings. The manifestations of this poisoning occur chiefly in the nervous system and are varied and numerous⁽¹⁾. Polyneuritis, as seen in adults, is the exception. Central nervous involvement is the rule and is designated by the term encephalopathy. A typical case was seen at the University Hospital and responded remarkably to a therapy relatively new.

CASE REPORT

B. N., a 12 months old white female was admitted on May 31, 1945, with complaints of vomiting for two months, weakness and irritability for two weeks, and a generalized convulsion the day before admission.

The vomiting began at the time she started cutting teeth and no importance was attached to the symptom. The episodes occurred more often in the morning, varied in amount, and in time, from immediately after a feeding to one or two hours later. However, no day passed without some vomiting, the emesis consisting of "curdled milk" and other recognizable foods. The feeding history was significant in several respects. The infant was still breast fed, and had a good appetite until two weeks before admission, except for the administration of nothing but goat's milk for the week prior to admission. No orange juice or cod liver oil had ever been given. Cereals, vegetables, eggs, bread, potatoes, and fruit were begun at six to eight months of age. A definite history of constipation was obtained, the onset of which was indefinite. Castoria every day relieved this symptom.

The developmental history was normal in that she sat up at six months, stood up at ten months, and was walking with help at eleven months. She lost the ability to do this a week prior to entry.

The convulsions on the 30th of May consisted of a tonic spasm, twitching of the muscles of the face, and the drooling of stringy saliva.

The positive physical findings on entry were as follows: marked irritability on being handled or touched, with continuous somnolence otherwise; moderate neck retraction so that she would not lie on her back; left internal strabismus; marked stiffness of neck, positive Kernig and Brudzinski signs; absent tendon jerks on all extremities; bilateral foot drop; generalized muscular weakness save for posterior neck and back; tense fontanelle; herpes simplex on lips; gingival redness; and liver 3 cms., spleen 1 cm., below costal margin. No lead line was noted, although eight teeth were present.

The weight was 16 pounds 4 ounces, the rectal temperature 100° F. Blood count on June 1, 1945, showed R.B.C. count 4.02 million, Hb. 9.1 gms., W.B.C. count 8,400, Seg. 1, Staff. 2, Eos., 2, Lymphs. 77, Monos. 18, reticulocyte count, 13.4%. A basophilic aggregation count of 6.6% was obtained (more than 2% suggests lead poisoning)⁽²⁾.

This finding of marked basophilic stippling led us to take roentgenograms of the long bones, which demonstrated a 2 mm. density in the metaphyseal areas, consistent with lead deposit. (Fig. 1).

To complete the picture, the mother, on repeated and insistent questioning finally admitted that storage battery casings had been burned in the cook stove that winter and spring. This positive history, plus the x-rays, and increased numbers of stippled R.B.C. made certain the diagnosis of lead poisoning with cerebral and muscular manifestations.

In the hospital during the first five days no change in symptoms occurred although no convulsions were noted. Tube feedings containing 400 mg. ascorbic acid, plus 10 drops of oil of percomorph were begun on the fourth hospital day. Following the suggestion of Kety⁽³⁾, and Kety and Letnoff⁽⁴, ⁵⁾, it was decided to use sodium citrate. Accordingly she was given 0.5 grams 5 times daily, beginning on the sixth hospital day.

Five days after this was begun, she sat up by herself, took an active interest in her environment, seemed quite alert, and the stiffness of the neck was gone. The tube feedings were discontinued on the ninth day of citrate therapy, the amount of vomitus during this period varying from 15 to 300 cc. a day. No emesis was noted from here on. A profuse purulent nasal discharge began on the fifth day of therapy, probably secondary to tube feeding trauma. Sulfadiazine 0.25 grains orally 5 times daily was given for 13 days with 1% ephedrine sulphate nasally, and cleared the infection.

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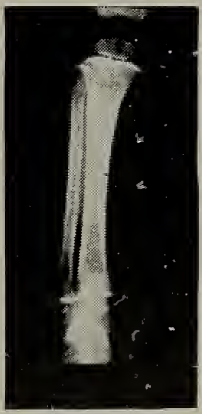

Fig. 1. Lead lines on tibia and fibula at metaphyses.

On the eighteenth day of therapy she stood up in bed, the foot drop had gone, the strabismus was hardly detectable and was gone on the twentieth day. She had now also become a laughing cooperative patient who jabbered a good deal. She was discharged on the forty-fourth day of therapy with the recommendation to continue citrate for thirty days.

Stippling of the red cells fell to a normal level within nine days on therapy and remained normal. The Hb. rose to 10.9 grams and the R.B.C. count to 4.64 millions during the same period.

DISCUSSION

Improvement occurred so rapidly on citrate therapy, that report of this case seemed justifiable. Spontaneous improvement does occur as reported by McKhann and Vogt(6), where 22 of 45 infants and children recovered completely. However, in his series 11 died, and 12 were left with permanent sequelae. Since his series contained older children, age may play some part in his recovery rate. Of 22 autopsies reported by Blackman(7), only 2 were over 3 years of age. Holt(8) states that only 1 of 20 cases admitted to Harriet Lane Home recovered completely. Thirteen died soon after admission, and 6 more left with permanent sequelae.

The lead ion is blamed for the lesions which may be found anywhere in the entire central nervous system. These lesions are apparently dependent upon the accumulations of serous exudate leading to capillary necrosis and thrombi, and large confluent spongy areas. The main objective of therapy then is to attempt to get rid of the lead via the urine and feces, without making available the poisonous lead ion which ordinarily is carried in the blood stream as readily ionizable lead diphosphate.

The lead is stored in the bone as the insoluble triphosphate, especially in the rapidly growing areas. A rapid increase in the amount of circulating lead diphosphate can be caused by an incident leading to acidosis, such as infection or the administration of acid producing salts (e.g. ammonium chloride). Fig. 2 illustrates the equilibrium. In our case, the symptoms may have been precipitated by a mild upper respiratory infection. However, there is a seasonal incidence of the disease, as noted by Blackman(7), and Shelling and Hopper(9), the large majority of cases occurring between the months of May and October. Rapoport and Rubin(10) suggest that the ingestion of Vitamin D favors the absorption of lead from the G. I. tract and produces symptoms in infants who get Vitamin D during the winter months, whereas infants not receiving Vitamin D become ill during the months of exposure to sunlight as a result of Vitamin D formation in the skin.

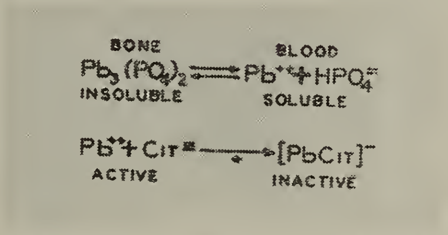

Fig. 2. Diagrammatic representation in line 1 of the equilibrium between the insoluble form of lead in the bone and the soluble form in the blood; and in line 2, of the conversion of active lead ion to the inactive but soluble lead citrate complex ion. (After Kety).

In 1942, Kety(3) stated that citrate ion was 1,000 times as effective as acetate, lactate, or ascorbate in producing a soluble lead citrate complex, and suggested its use in the therapy of lead poisoning. (Fig. 2). Gratifying results were obtained by Kety and Letonoff(4) in adults and children, using 2 to 4 grams 3 times daily in adults and 1 gram t.i.d., in children. Prompt remission of symptoms and drop in blood lead were noted. A later report(5) suggests 12 to 20 grams daily for adults with remarkable recoveries. Thus there is clinical confirmation of the ability of citrate ion to tie up lead in a soluble but harmless complex, so that excretion can be continued slowly without dire results to the patient. The optimum length of the course of therapy is apparently still to be determined. Judging from these last reports and from our case, citrate therapy is by far the most effective in lead poisoning.

SUMMARY

1. A case of lead encephalopathy in a 12 months old infant, following exposure to fumes from burning battery casings, is reported.

2. Apparently rapid recovery was obtained using 2.5 grams of sodium citrate daily.

REFERENCES

1. Cantarow, A., and Trumper, M.: Lead Poisoning. Baltimore, Williams and Wilkins, 1944.

2. McCord, C. P.; Holden, F. R., and Johnston, J.: Basophilic Aggregation Test in the Lead Poisoning Epidemic of 1934-35. Am. J. Pub. Health 25:1089, 1935.

3. Kety, S. S.: The Lead Citrate Complex Ion and Its Role in the Physiology and Therapy of Lead Poisoning. J. Biol. Chem. 142:181, 1942.

4. Kety, S. S., and Letonoff, T. V.: Treatment of Lead Poisoning with Sodium Citrate. Proc. Soc. Exper. Biol. & Med. 46:476, 1941.

5. Kety, S. S., and Letonoff, T. V.: Treatment of Lead Poisoning by Sodium Citrate. Am. J. M. Sc. 205:406, 1943.

6. McKhann, C. F., and Vogt, E. C.: Lead Poisoning in Children. J.A.M.A. 101:1131, 1933.

7. Blackman, S. S.: Lesions of Lead Encephalitis in Children. Bull. Johns Hopkins Hosp. 61:1, 1937.

8. Holt, L. E.: As quoted in Ford, F., Diseases of the Nervous System in Infancy and Childhood. Springfield, C. C. Thomas, 1937.

9. Shelling, D. H., and Hopper, K. B.: Calcium and Phosphorus Studies; Six Years' Clinical Experience with Viosterol in Prevention and Treatment of Rickets and Allied Diseases. Bull. Johns Hopkins Hosp. 58:137, 1936.

10. Rapoport, M., and Rubin, M. I.: Lead Poisoning; A Clinical and Experimental Study of the Factors Influencing the Seasonal Incidence in Children. Am. J. Dis. Child. 61:245, 1941.

* * *

EPIDEMIC MUSCLAR RHEUMATISM BLAMED FOR BIG MAN-HOUR LOSS

Muscular rheumatism of the chest, known as pleurodynia, is a communicable, incapacitating disease which is responsible for the loss of many man-hours of labor because of its epidemic form, according to Samuel J. Nichamin, M.D., Surgeon (Retired), U. S. Public Health Service, Memphis, Tennessee.

Dr. Nichamin, writing in a recent issue of The Journal of the American Medical Association, said "the afflicted individual, although reassured as to his ultimate recovery, nevertheless finds himself relatively incapacitated and unable to perform his regular duties successfully over an indefinite period of time. Such disability when multiplied en masse for an entire group of a working population may exert a significant effect on industrial efficiency."

Explaining its epidemic characteristics, Dr. Nichaman said that "during a period extending from the last week of June, 1944, through the middle of November, 1944, 75 cases of epidemic pleurodynia or myalgia were collected on Blakely Island, a war housing project, located on an island in the Mobile River, which lies adjacent to a large shipbuilding yard. Occupancy of the 1,200 apartments in this project was limited to employees of this concern. A tunnel for automobile traffic connects the island with the mainland. This group of shipyard workers and their families consisted of white persons, most of whom came from rural areas of Alabama and Mississippi."

The disease as a rule occurs in epidemic form, usually in the summer and autumn. All ages are attacked, but the disease was most prevalent among persons under 30 years of age, totaling in this category 51 cases (68 per cent). The cause of the disease is not known. "However," Dr. Nichamin wrote, "recent work at the National Institute of Health has given promising results toward establishing a virus as the infectious agent."

The onset of pleurodynia is sudden, sometimes with a chill, and usually there is a fever. Pain is increased by deep breathing, exercise, coughing or sneezing. As a result, the patient breathes as shallowly as possible. "Efforts were made to provide effective therapeutic agents," Dr. Nichamin wrote, "so as to enable the patients to resume their important wartime duties within the shortest time, thereby preventing relatively long periods of absenteeism. No such hopes were realized, except for temporary relief secured by the local application of heat and occasional strapping of the lower thoracic region. In spite of the multiplicity of therapeutic agents exhibited, including the sulfonamides, vitamin B_1 and neostigmine, no convincing beneficial results materialized."

Emergencies of the Neonatal Period*

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It is now accepted that the care of the infant begins with the earliest stages of pregnancy. If we carry the point to logical length, it becomes self-evident that the fate of the fetus is wholly dependent upon the ability of its mother to supply the building materials from which the organism is to develop. Even if we accept the idea in full that the fetus draws all he can on the maternal resources for his own utilization, it still remains true that the care of the pregnant woman is one of the most important phases of infant hygiene.

One of the major considerations from the standpoint of the infant, is the preparation of the mother for delivery. Most young mothers especially, are now aware of the importance of prenatal supervision. The doctor for his part has the opportunity to gain a comprehensive idea as to the general state of health of his patient, the pelvic measurements, and by examination, determine with a fair degree of accuracy existing anomalies of the fetal position, and plan his conduct of labor accordingly. In cases where difficulties from maternal or fetal causes are predictable, labor should be elective as to time and type.

The analgesic or anesthetic should be chosen with the view to maximum safety for both the mother and the infant. It has been said that the safest anesthetic is the one with which the surgeon is most familiar. This may be true for surgery in general, or where the safety of the patient alone is concerned. In obstetrics, the safest anesthetic is the one which is least harmful to the mother and least damaging to the infant. It must be constantly borne in mind that the fetus even under normal conditions, is under a constant state of oxygen deprivation. Under adverse conditions his status may become very precarious.

Many workers in the field of embryology believe that respiration goes on in utero, though not all of them agree that it is carried to the extent of gaseous exchange in the fetal lungs. That many infants react unfavorably to analgesics and anesthetics given the mother is evident from the numbers of infants who are born asphyxiated, and who subsequently show signs of cerebral injury. Caution in the choice of an anesthetic is particularly urgent in cases of premature deliveries. According to some obstetricians morphine, scopolamine or the barbiturates should not be employed in such deliveries.

ASPHYXIA

All too frequently, even a normal delivery will yield an infant who seems reluctant to take his first breath. He appears well formed, not too cyanotic, with a steady, rapid pulse of good volume. The apnoea may last for several minutes, following which the cyanosis will deepen and the child will issue his first cry. Respiration will go on uninterrupted. The delay in such cases is probably due to the fact that the infant was born with blood relatively rich in oxygen. He did not breathe until enough CO_2 accumulated to stimulate the respiratory center.

The question is sometimes asked: "How long can the brain of the newborn infant be deprived of oxygen without suffering permanent damage?" The answer cannot be supplied in definite terms. Some believe a maximum of three minutes, others maintain that even less than one minute may produce an irreversible reaction. Actually we have all seen infants who had difficulty establishing their respiration for longer periods than the maximum here quoted, and who nevertheless escaped the results usually associated with cerebral damage of anoxial origin. Whether this impunity is the result of brain tissue resistance in the individual infant or whether it is the response to a conditioning process over months of life under low oxygen levels or a combination of these and other as yet unknown factors, may be anyone's guess. It is, however, foolish to tempt Providence. In the event of the baby who has difficulty in establishing his respiratory function following delivery, and under the logical assumption that oxygen want is a dangerous phenomenon, the gas should be supplied by whatever means may be at hand.

Asphyxia is brought about by a reduction of oxygen in the circulating blood. This reduction may be of peripheral or of central origin. In the peripheral type there is an interference with the entrance of oxygen

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*From the Department of Pediatrics, University of Nebraska Medical College. Read before the Omaha Mid-West Clinical Society, October 1945.

into the circulation. This may occur in utero from such conditions as premature separation of the placenta, the cord around the neck of the fetus, or a severe anemia of the mother. At the time of birth it may result from strangulation, or aspiration of amniotic fluid or other foreign material. The intrinsic or central variety is due to actual interference with the functions of the infant's respiratory center. Cerebral hemorrhage or edema, toxemia, or shock, resulting from the sedative or anesthetic administered to the mother prior to delivery. According to Cole(1), "every additional dose of any sedative increases the incidence of asphyxia in direct proportion to the amount given." Morphine and the barbiturates act directly as depressants of the respiratory center. Others produce their damaging effects indirectly by prolonging labor or by affecting the brain tissue.

The care of the asphyxiated infant should be evaluated on the basis of common sense rather than on empiricism. For example, not infrequently both extrinsic and intrinsic factors may operate. Thus it is conceivable that an infant partially asphyxiated from the umbilical cord around its neck may in addition suffer from an overdose of morphine and barbiturate given his mother prior to her reaching the delivery room. In similar manner one may encounter a toxic baby delivered of a toxemic mother, with a trachea plugged by mucus and amniotic fluid.

Whatever the cause of asphyxia, it should be treated as an emergency requiring gentleness, calmness, and intelligence. The first consideration is to clear the upper air passages in order to allow access of oxygen. With the head down, the nose and mouth are wiped with soft gauze, and the trachea milked gently of aspirated fluid. Oxygen may then be given through a glass funnel if more elaborate apparatus is not available. The mucus must be aspirated from time to time, either by repeated milking of the trachea or by a syringe, or both. Oxygen should be supplied until the skin assumes a normal color. The infant may then be allowed to breathe air, but must be constantly watched. On reappearance of cyanosis, oxygen should be re-administered. Needless to say, at all times the infant should be kept warm. In most instances where the asphyxia is not due to cerebral hemorrhage the simple procedure outlined above will establish breathing.

Comparatively few pediatricians have faith in drugs as a means of resuscitation. They are being used, however, and indeed should be used when other means fail. Tow(2) believes that the practice of placing the child head down following resuscitation is based more on habit than on physiologic principle. He does not believe that this position promotes escape of aspirated fluid through gravity, because the cilia in the upper air passages interfere with the process. He recommends the Fowler position, on the theory that the latter position makes breathing easier. It is well known that patients with pneumonia or cardiac decompensation prefer the Fowler position because they feel more comfortable in the sitting posture. The Fowler position, he believes, is especially important in the case of the premature infant, because of the ever present possibility of cerebral hemorrhage. It has been shown that the spinal fluid pressure is less in this position than with the head lower than the hips.

CEREBRAL EDEMA

Cerebral edema often presents a difficult problem in diagnosis. The symptoms are similar to those of intracranial hemorrhage. The most important and most prevalent manifestations are convulsions. The frequency of the convulsions depends largely on the extent of the intracranial pressure and on relief following treatment. The edema is a result of positive and negative pressure on the descending head by the forces of labor or of toxins of maternal origin. Unlike cerebral hemorrhage from intracranial injury and often localized and accompanied by local twitching, the cerebral edema involves the brain as a whole and the symptoms produced are those of generalized and marked irritability of the brain.

Spinal puncture may reveal a few red cells in the cerebrospinal fluid. Cerebral edema may be diffrentiated from intracranial hemorrhage by the fact that in the latter condition the blood occurs in much greater amounts than in the cerebral edema, where the blood cells are probably the result of diapedesis rather than direct seepage from a broken vessel.

The treatment of cerebral edema consists of control of convulsions which may be achieved through the use of sedatives, intramuscular injections of 1 cc of a saturated solution of magnesium sulfate, spinal fluid taps to relieve the pressure and the intravenous use of 50 percent sucrose.

The prognosis generally is favorable, provided that the convulsions are controlled prior to the time where irreversible changes in brain tissue take place. In the majority of cases, the results are good. Following the reduction of pressure, the convulsions cease and the infant makes an uneventful recovery.

INTRACRANIAL HEMORRHAGE

Intracranial hemorrhage may occur following birth under any variety of conditions. While most cases of hemorrhage result from difficult deliveries, any infant, regardless of type of labor he has gone through, in the presence of symptoms pointing to cerebral irritation, should be suspected of suffering from intracranial hemorrhage. Clinically the condition may be divided into groups based on the intensity of the damage. A mild hemorrhage with minute capillary bleeding may produce nothing more than a restlessness and a refusal to nurse. Twitchings of muscles may or may not be present. These infants at times offer no serious problem, particularly if the bleeding ceases before a clot has been formed. The treatment of this type of hemorrhage consists of keeping the child as quiet as possible by the administration of adequate doses of sedatives. In the majority of cases, that is all that is necessary.

The moderate type is a serious problem. Depending upon the location of the bleeding, symptoms may range from local twitchings to violent, generalized convulsions. Where in the milder type the symptoms may not become apparent until several hours or even days after birth, in this variety the infant as a rule shows symptoms at birth or immediately thereafter. Asphyxia is almost the rule. Following resuscitation, the infant usually goes into a stupor accompanied by difficulty in respiration. The administration of oxygen may clear the cyanosis for a short period when the infant, following a series of muscle spasms, again stops breathing. This process may go on for several hours or days, following which convulsions cease and the infant may show no signs of disturbance until signs of spastic paraplegia with or without mental deficiency become apparent.

In the treatment of this type of hemorrhage the first effort should be directed to checking of hemorrhage. The former use of blood intramuscularly has been replaced by Vitamin K in some form. Sedatives must be used in adequate doses to secure rest. Spinal taps are indicated where the pressure is markedly increased. One point should be emphasized: the damage to the brain tissue in these cases may be due not only to the hemorrhage itself but also to the lactic acid resulting from severe muscle contractions and to the anoxia suffered during the periods of apnoea. The importance of oxygen administration in these cases therefore becomes obvious.

The massive hemorrhage offers less of a problem in the majority of cases than does the moderate type because many of the infants who suffer from profuse intracranial hemorrhage do not survive more than a few hours. Frequently they do not recover from the asphyxia during or following labor. Those who do survive are as a general rule spastic, and almost invariably suffer from mental deficiency.

In connection with the prognosis, it is well to remember that not infrequently an infant presents all the symptoms of a severe massive hemorrhage which looks hopeless, yet the infant may not only survive but may show little, if any, evidence of intracranial damage. The following case will illustrate:

Baby C. born in Lutheran Hospital following a very long and difficult labor. Asphyxia was pronounced. Following resuscitation, the baby slumped into unconsciousness and stopped breathing. Oxygen was administered and respirations returned but remained irregular. One hour after delivery there was a severe generalized convulsion. Respiration again stopped but returned with the administration of oxygen. There were repeated, generalized convulsions for five days. At the end of the fifth day, the child began to improve and to take its feedings. Progress was uneventful and he was dismissed from the hospital on the 14th day. The spinal fluid done on the first day was bloody and continued so until the tenth day. This child is now two years old. He has made normal progress in his physical and mental development.

The explanation in these severe, massive hemorrhages where the baby escapes permanent cerebral damage is that the hemorrhage is mainly meningeal and that the brain itself was not involved, or that the site which may have been involved is one of the silent areas.

ATELECTASIS

The frequency with which this condition appears is difficult to determine, since in most instances the collapse of the lungs includes only a small surface and the infant escapes many of the symptoms referrable to the respiratory function. In this condition, too, the problem of diagnosis at times becomes difficult. In some cases, the difference between marked atelectasis and intracranial damage which affects the respiratory center, is difficult to determine.

Generally the infant is born asphyxiated, resuscitation is prolonged, and, following respiratory effort and a weak cry, the infant again falls into a state of asphyxiation with little or no effort at respiratory movements. The grunting respiration following resuscitation persists at times for several hours. The infant remains stuporous and no breath sounds or very weak sounds, may be heard on auscultation. In cases where atelectasis involves a large part of one or both lungs, very few, or no breath sounds may be heard. Not infrequently if the child survives the initial stage of asphyxia, twitching and convulsions may be seen, due to the anoxemia.

Atelectasis should be considered an emergency and treatment instituted on that principle: 1—Keep the child warm; 2—Artificial respiration, either manually or through a respirator, if one is available; 3—Frequent administration of oxygen. The last phase of the treatment can not be overemphasized. If one takes into account the mechanism of respiration in the newborn, one can not minimize the importance of oxygen as a means not only of saving the life of the infant but also of preventing irreversible cerebral changes due to anoxemia.

It is well known that when the infant is born the lungs are in partial collapse. The first cry sends the volume of air downward through the trachea, the bronchi, to the smaller branches of the bronchial tree. With increased breathing air ultimately fills the entire lung, including the small capillaries. An infant who does not breathe spontaneously but shows evidence of attempted breathing, if encouraged, by the administration of carbon dioxide or artificial respiration, will ultimately take in enough air to relieve the collapse. However, it is important to provide a richly supplied oxygen atmosphere which during the time of shallow, irregular respiration will maintain a sufficient oxygen volume to prevent anoxemia, because even a temporary oxygen deprivation may produce permanent cerebral damage.

By and large, and particularly where the atelectasis does not involve a large surface of the lungs, or where oxygen is supplied during the period of contingency, these infants make a good recovery.

DIARRHEA OF THE NEWBORN

While the conditions thus far enumerated are to be found at birth or immediately after birth, diarrhea of the newborn usually manifests itself almost at any time during the period in which the infant is struggling for survival. From the etiologic viewpoint, the diarrheas of the newborn may be divided into two distinct groups: the infectious and the biochemical.

The symptoms in both these groups do not vary much; the child becomes ill very suddenly with high fever and prostration. The stools become frequent and dehydration follows rapidly. The distinction between the two types may be made only through the isolation of the sheiga bacillus in the infectious type. In this type, the infant usually acquires the diarrhea as a result of a toxemia produced by the organisms. As a general rule, the infection is brought into the nursery through the personnel. The organisms may gain entrance through the feeding or by almost any means which may or may not be easy to trace.

In the case of infants who acquire diarrhea without infection, the story is a familiar one. It is found usually in the summer months during hot and sultry weather. Most of us are under the impression that when a child loses water and becomes thirsty, it will make its thirst known by crying or fussing. While that is true as a general rule, there are infants, especially those who are below par to begin with, in whom a great loss of fluid will produce marked weakness and somnolence which will render them unable to manifest the usual means which bring attention.

The sequence of events is about as follows: profuse sweating, dehydration which brings about frequency in stools. These in turn increase the dehydration with the result that toxemia sets in, respiration becomes irregular with accompanying anoxemia, acidosis, and often death. The condition is an emergency which calls for prompt and effective treatment. The treatment consists largely of replacing the water loss and combatting of toxemia and acidosis.

In the case of infectious diarrhea, the prognosis is unfavorable because of the toxic elements which circulate in the blood stream. Epidemics of this type of diarrhea are recorded from time to time, with deaths ranging from 10 to 80 percent of the nursery population when attacked. Fortunately, the condition is not as treacherous as figures indicate, provided that the nursery staff is alert and uses procedures now accepted as preventable and therapeutic.

Common sense calls for immediate separation and isolation of an infant with diarrhea, regardless of origin. Any infant who shows a frequent watery stool calls for thorough investigation, including a bacteriologic examination of the stool.

Treatment consists of replacing the lost fluid by means of blood or plasma transfusions and/or administration of saline or Hartman solution, these to be repeated as the condition of the infant indicates.

In giving these fluids, it is necessary to take into account the size of the infant and to remember that such an infant can tolerate only a certain amount of fluid. As a general rule, it is better to give small transfusions frequently than it is to give a large transfusion at one time. Where the dehydration is not too grave, 50 to 100 cc of Hartman solution intravenously or subcutaneously once or twice a day is usually enough to prevent a marked decline. If blood is given, 100 to 150 cc at one time should be injected. The use of sulfanamides is doubtful in these cases, and penicillin is at the present time not considered specific. However both or either should be tried.

Feedings should be given by mouth only if the child does not vomit. Where vomiting exists, food will only add to the irritation and to dechlorinization. In cases where an infant has diarrhea without infection, preventive measures consist of the appreciation that during hot weather infants need water frequently. Whether it is accepted or not, during hot days water should be given to every infant between feedings. No one knows when a child is thirsty and not all infants cry when they are thirsty. As was observed earlier, some may be too weak to cry.

1. This Journal, Vol. 28, p. 200, July, 1943.
2. Advances in Pediatrics, Vol. 1, p. 183, 1942.

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NASAL ALLERGIES REQUIRE IMMEDIATE CARE TO AVOID COMPLICATIONS

Nasal allergy, if neglected, is prone to develop into chronic sinusitis, bronchitis, or asthma according to Andrew A. Eggston, M.D., of New York.

"Allergy and sinusitis may exist as separate diseases, but they are frequently intimately associated. Either allergy or sinusitis may exist previous to the other and one may aid in development of the other. In about 60 to 80 per cent of nasal allergy cases there is a definite background of sinusitis, and about the same number of cases of sinusitis show signs of bacterial or other allergy," the author stated in the January issue of Hygeia, health magazine of the American Medical Association.

Allergy is a popular, as well as scientific, word for any unusual reaction of the body to a common and generally harmless substance in nature. "Hay fever allergies represent the best example of true allergic diseases of the nose, and they may exist uncomplicated by an infection of the sinuses," Dr. Eggston said. "If neglected, however, they may lead to chronic trouble. One must remember that allergy is a constitutional disease, and that not only the nose but all the tissues of the body will react to an allergic substance . . .

"Another type of nose allergy is the perennial type, with symptoms any time of the year. This is frequently due to bacteria, house dust, food or animal dusts . . . Asthmatic patients usually have nasal allergy but it is nearly always in combination with an infected sinus, or sinusitis, an inflammation of the nasal membrane characterized by nasal discharge, headache, and a general feeling of indisposition. In the acute phase of sinusitis, there may be fever. Sinusitis, when due to germs, may become a long drawn out and debilitating affair called chronic sinusitis. Nearly every person with a cold in the nose also has an acute inflammation of the adjoining sinuses. This may cause a cold to be prolonged for days, and characteristically a copious mucous discharge of pus appears."

There is no quick cure for allergy or sinus trouble. Unfortunately, neither the sulfonamide drugs nor penicillin has been very effective in giving relief from allergy or chronic sinusitis. Dr. Eggston suggests, however, that "a person's sensitivity can gradually be reduced to normal by repeated exposures to small hypodermic doses of the substance to which he reacts. It may be necessary to continue this treatment for several years."

Fifty Years of Radiology

From Roentgen to the Era of Atomic Power

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The event of the greatest scientific significance to many in the recent past was the discovery of x-rays 50 years ago today. The event of the greatest social and political significance was the atomic explosion at Alamagorda last year. The 1945 imagination challenging occurrence was a scientific descendant of the less spectacular one in 1895. At that time as now there were people who wanted to stay in the past and not chance a new future.

In the London Pall Mall Gazette appeared the following, "We are sick of roentgen rays. It is now said, we hope, untruly, that Mr. Edison has discovered a substance—tungstate of calcium is its repulsive name—which is potential, whatever that means, to the said rays. The consequence of which appears to be that you can see other people's bones with the naked eye, and also see through 8 inches of solid wood. On the resulting indecency of this there is no need to dwell. But what we seriously put before the attention of the government is that the moment tungstate of calcium comes into anything like general use, it will call for legislative restrictions of the severest kind. Perhaps the best thing would be for all civilized nations to combine to burn all works on the roentgen rays, to execute all the discoverers, and to corner all the tungstate in the world and whalm it in the middle of the ocean. Let the fish contemplate each others' bones if they like, but not us."

History repeats itself. Today we find people who suggest putting all who had anything to do with the atomic bomb in a lethal gas chamber, burn up all records and destroy all factories. On the more serious side, we find the leaders of our country trying to so control the science involved in atomic power that they would sterilize effort even to apply it to medical fields.

The advance in the natural and biological sciences following Roentgen's discovery tumbled over each other they came so fast. The same will undoubtedly be true following the development of atomic power.

The story of the discovery of x-rays as you have just heard is a fascinating one. Professor Roentgen accomplished a great deal in a short time in elucidating the physical characteristics of his new rays. Fortunately for him he worked protected by metal from the rays and did not expose himself or anyone else to a sufficient amount of radiation to cause biological change. One wishes now that another "Roentgen" had arisen at that time who would have done for the biological effects what Roentgen did for the physical characteristics of his ray. As you know, the news of the new ray traveled the world over and since many people had the equipment already at hand or rapidly available, experiments with the new rays were widespread, almost over night.

It is always difficult to determine how and where ideas arise and frequently it is of little practical importance that any one person first mentioned a subject, unless they carried the implications through to a satisfactory conclusion. It would seem that Dr. Grubbe of Chicago, who was then a manufacturer of vacuum tubes, was one of the first to notice the damage to his hands after experimenting with x-ray tube production, and to connect the damage with the x-rays. This fact should be noted since many of those who suffered from x-ray burns later tried to explain them on the basis of chemicals, high tension discharges and other factors. There were discussions as to whether any reactions would come from x-rays made with static machines, even though it was admitted that such reactions occurred from coil machines. Mr. Grubbe presented himself for treatment in January 1896 and was seen by a Dr. J. E. Gilman, amongst others. Dr. Gilman felt that any agent which could cause such changes in tissue should be tried as a therapeutic agent on carcinoma. Hence he referred a case of carcinoma of the breast to Mr. Grubbe on January 29, 1896. This was apparently one of the first treatments ever given with x-rays.

The x-rays produced on the apparatus available in 1896 were "soft" or poorly penetrating. The skin and soft tissue absorbed most of them so that a very small number penetrated through to affect photographic plates. Very long exposures were needed to make the image of the bones visible. In April of 1896 Wm. Webster noted that the pain of an arthritic elbow was greatly relieved following a long diagnostic exposure. This was the first evidence of the analgesic effect of x-rays. In the same month, Prof. Daniel of Vanderbilt University noted that the hair of the head of Dr. W. E. Dudley fell out some days after radiographic exposures of his head. Freund of Vienna was one of the first to employ this demonstrated epilating effect of x-rays in the practical problem of removing a large hairy naevus from the back of a little girl. Freund's contribution is not that he did apply a known effect to a therapeutic problem but he described the factors which he used in a better way than anyone had previously described them.

Another early chapter in the therapeutic uses of x-rays was introduced because it was thought that the new kind of ray was present in sunlight and sunlight was known to have bactericidal properties. As early as January 1896 the idea was brought forth that bacteria should be destroyed by radiation. For the next few years many attempts were made to destroy bacteria in cultures and it was found that perfectly tremendous doses were needed. However, it was also discovered in that same period that treatment of some infected areas did result in healing. Thus, here at the beginning, one of the questions which has not yet been answered was imposed in definite terms. Why does the radiation act in some surroundings and not in others? This applies not only to the influence on bacteria, but likewise to that on cancer and on normal tissues.

The desire to influence infected areas led some enthusiasts to attempt to treat pulmonary tuberculosis with x-rays, on the assumption that since sunlight did it good, x-rays should do it more good. The treatment of pulmonary tuberculosis with x-rays has long since justly faded into the limbo of forgotten measures.

One of the first practical tests of the effect of x-rays on tissues was that of Elihu Thomson of Boston who exposed his own finger to radiation and proved not only that the x-rays caused the effect but also that it was only the part exposed that reacted. His experiences led him to recognize the accumulative effect of radiations. His efforts were directed at showing the dangers and promoting the protection of individuals from the harmful effects of radiations rather than toward therapeutic uses.

The Medical profession reacts in two ways to new ideas. There are those ultra-conservatives who wish to have nothing to do with anything new and even regard such things as quackery. Thus, Dr. Cole of New York was refused permission to radiograph lungs removed at autopsies and finally succeeded in getting a patient to radiograph provided he would not tell anyone the name of the physician sending the patient. Dr. Francis Williams of Boston also stood the ridicule and sarcasm of the early days in trying to advance the science of radiology. A professor of clinical medicine in discussing one of Dr. Williams' presentations said the following: "I have been much interested in the development of x-ray and have seen something of its use as demonstrated by Mr. Walter Dodd at the Massachusetts Hospital. I will admit that I can see broken bones; that I can see metallic foreign bodies in the extremities; but when it comes to x-rays of the chest and to some extent of the abdomen I am much less clear. Frank Williams has just shown you some plates and tells you that the heart is here, and the lung is here. Now I cannot see a thing in these plates and to be truthful I do not think he can." H. Roberts wrote in 1897, "The x-ray was denounced by some leading men in our profession, by teachers in surgery, diagnosticians, pathologists and practitioners. It was regarded by them as foolery, spectacular only and fit for the quacks armamentorium."

On the other side of the picture are those hyperenthusiasts who without adequate knowledge hasten to use any diagnostic or therapeutic measures before they are sufficiently understood or their effectiveness known. From their activities x-ray therapy came to be considered somewhat as a form of quackery. They claimed such remarkable results in so many diseases that the medical profession looked askance at any claims of therapeutic effectiveness.

Due to the efforts of reliable physicians it was found that x-rays were of definite value in therapy. The next step was to find a means of describing the conditions under which it was used, in such a way that the results could be reproduced by someone at a distant point or even by the same man at the same place when he had to use another tube or apparatus for providing the high voltage. The original equipment for reproducing the high voltage currents and the x-rays was quite crude and unstable and hence before scientific progress could be made, better equipment had to be developed. It was thus necessary that in the progress of roentgen therapy, the following advances must take place side by side:

1. The development of more reliable sources of high voltage current
2. More stable x-ray tubes
3. Means of measuring the quantity of x-rays, and
4. Means of describing the quality of x-rays.

Roentgen used an induction coil to energize his tube, but many laboratories at the time were using so-called statis machines and they came into quite general use. The manufacturers produced greatly improved types but they were fragile, had low current capacity and lacked voltage and current control. They were gradually superseded by more powerful induction coils. The induction coils were more rugged, and provided higher voltage and more current, and better control of both, but the best only reached 20 milliampere currents. One of the big problems connected with them was the interrupter. The early pioneers had great trouble with these. In 1907 the Snook interrupterless transformer was introduced and with it the energy available exceeded the capacity of the x-ray tubes available. The value of higher energies soon became so apparent that the trend from then on was toward higher and higher energy transformers. Since the transformers produced an alternating type of current and x-ray tubes required a current flowing in one direction, various types of mechanical rectifiers were introduced by various manufacturers along with new types of transformers. The control of the energy output was first secured by a variable resistance in the primary circuit, but in 1909 the auto-transformer was introduced. This continues to fill a valuable place in x-ray apparatus.

With the introduction of valve tube rectification on a commercial scale in 1926, we see an example of the joining of forces of two lines of development from Roentgen's early discovery. One of those peculiar coincidences now enters the picture. Electrons were discovered as a result of the discovery of x-rays. The development of electron tubes paralleled somewhat the development of x-ray apparatus. The valve tube utilizing the science of electronics came to the aid of x-ray by providing the most satisfactory means of rectification. By combining the valve tube rectification with condensers it was possible to provide almost constant potential currents for x-ray therapy. Constant potential currents gave a beam of x-rays with a far more penetrating ray than the fluctuating current apparatus operating on a peak voltage equal to the constant potential. With no discouragement from those who make constant potential equipment, we ardently argued the advantages of x-rays produced by a constant potential over those produced by fluctuating voltage. It was almost malpractice in the opinion of some of us for our fellow radiologist to actually continue to treat patients with old type fluctuating currents.

With each advance in voltage and current output and control, the opportunities for varying techniques became much greater and the depth to which sufficient radiation could be delivered increased. Therefore in reviewing the therapy of the past it will be well to remember a few dates.

The first 200 kv therapy apparatus became available in this country in 1921 and very rapidly became quite generally adopted with improvements being added. About ten years later several much higher voltage units became available for experimental work on clinical material; a special induction coil type was installed at New York Memorial Hospital; a transformer type was built by C. C. Lauritsen and by General Electric; a high frequency resonance generator was built by Sloan and Van deGraff developed an electrostatic generator. After another ten year period a new type of electron accelerator called the betatron was discovered by Kerst and now x-rays can be produced with energies of 20-100 million volts and the end is not yet in sight. Such energetic rays have not yet been tried in clinical radiologic practice.

To the equipment manufacturers the radiologists and humanity owe a great debt of gratitude in that they not only put into equipment all new developments from outside scientists but they had their own crop of scientists continually on the search for technological improvements and new ideas with which to make more satisfactory apparatus. We have now almost unlimited voltages and current under accurate control.

While apparatus to produce high voltage electricity is necessary, the real source of the radiation is of course the evacuated tube. Roentgen was working with a Hittorf-Crookes tube when he discovered the new rays. Such tubes were considered to be highly evacuated, but fortunately the degree of evacuation was such that some gas atoms were still present. These served as the means of producing the cathode stream which went from the cathode or negative end of the tube to the glass at the opposite end. The x-rays were produced when the electrons were stopped in the glass. With such an arrangement it was impossible to get very high intensities of radiation because there is always heat produced when the cathode rays are stopped and if heavy currents were used the glass melted. One of the first improvements in x-ray tubes was therefore the insertion of a platinum foil target, and with this was a focusing arrangement so that the cathode rays converged on the target rather than scattering over the whole end of the tube. In this present day when we are so accustomed to fine focus x-ray tubes, it is interesting to read that these early tubes with concave cathodes were called "focus tubes". Many developments were made in the gas tubes to permit more stable operation with higher x-ray output. Various methods of controlling the gas pressure in the tube were devised. Heavier targets were made that could stand more heat. The greatest improvement was the development of ductile tungsten and its use as disc embedded in copper.

In 1913 W. B. Coolidge introduced the hot cathode high vacuum tube. This was one of the greatest technical advances made in radiology because it permitted stable and reproducible operations with flexibility and long life. For therapeutic uses the development of means of cooling the target so that continuous operation at relatively high currents was possible, has been the line of most profitable improvement since the high vacuum hot cathode tube was introduced. Of course, throughout this period of development tubes that would stand higher and higher voltage were made, until now there are available two million volt, multiple sectional vacuum sealed tubes.

Thus the manufacturers from the very beginning supplied the means of making x-ray and gradually improved these. But in order to scientifically utilize the x-ray it was necessary to know both the quality and the quantity of x-ray being utilized. Every high potential producing apparatus gave currents with different energy distribution and these in turn produced x-rays of multiple penetrating qualities. In addition, the erratic behavior of gas tubes and the less erratic but still variable behavior of modern tubes caused variations. In the early years of x-ray therapy it was very difficult to tell what quantity or quality of radiation had been used for any treatment.

The early methods of measuring x-ray radiation frequently involved both the quantity and quality with no clear distinction. Roentgen himself suggested chemical means of measurement. He also noted that the air through which the x-rays passed was ionized, but he does not seem to have suggested this as a means of measurement. Early in 1896, J. Perrin first measured the loss of an electric charge caused by the ionization produced by x-ray, by means of an air condenser. But this method was lost sight of or very little used for several years, and several other methods tried. The fact that a fused mixture of potassium chloride and sodium carbonate changed color when radiated was used. In 1904 pastilles of barium platinocyanide which fluoresced under radiations were used, the degree of fluorescence being the measure of the quantity. Holzknecht and others devised scales of comparison of the color of pastilles to the erythema dose. Various fluorescent methods were used and improvements made in them even as late as 1926. In 1905 the degree of darkening of a photographic silver bromide paper was worked out by Keinback.

The amount or quantity of x-ray that is produced is dependent upon the amount of current that flows through the x-ray tube. In 1904 a meter which could measure the small currents in thousandths of amperes in the high potential line was introduced. This milliampere meter gradually became very wide spread and the commonest method of expression of the quantity of x-rays was the number of milliampere minutes used, i.e. the current flowing through the tube measured in milliamperes multiplied by the number of minutes it was made to flow. Such a description was utilized very freely up until the consenser "r" meter became available in 1930 and even yet is too frequently used. In its time it was extremely valuable but the quantity of x-rays depends upon so many other factors that it is only a crude approximation of a correct measure.

Biological methods of measuring the quantity of x-rays have been numerous. Thus the effects on oscaris eggs, transplated tumors, on fruit fly eggs, on tadpoles, wheat seedlings and other biological materials have been used as methods of measuring the quantity of x-rays. Probably the best biological methods from the therapeutists' point of view has been the reddening of the human skin. While, as do all biological effects, the amount required to produce an erythema or redness varied considerably from person to person and while each observer may differ as to what he calls an erythema, never-the-less the erythema dose has been and continues to be a much used and useful manner of measuring quantity, provided the quality is known.

While other physical means were tried from time to time, down through the years the ionizing effects of x-rays were frequently turned to as a means of measuring for other than medical purposes. As early as 1908 Villard suggested the electrostatic unit as a measure of the ionization. In 1914 Szilard constructed a dosimeter to measure this ionization in a small metal chamber. It was realized by all that to properly measure the ionization large air chambers would be needed and the higher the voltage the larger the chambers. These were not practical in the many radiologists' offices that had been established and hence there was a keen desire for smaller units that would accurately measure the ionization. In 1925 Fricke and Glasser constructed the first small air wall ionization chamber, which came to be known as the thimble type. In 1928 a dosage unit based on ionization was accepted by the International Congress of Radiology. It was called a "roentgen" and designated by a small letter "r". A change in definition of this unit was agreed on at the 5th International Congress in 1937 and is the one at present in use. The small thimble chambers cannot fulfill the requirements of the definition but they can be calibrated against large chambers and pressure chambers such as those developed at the Bureau of Standards. Various types of ionization measuring apparatus have been developed in the research laboratories, but the production of commercial instruments has been limited to a small number of companies. Up until 1927 commercially available instruments were almost all of foreign make. Since 1927, dosimeters, condenser meters, integrons, intensitometers and other such meters have been available. It is now inexcusable for a radiologist to be unable to tell with a considerable degree of accuracy the quantity of radiation that he uses in the treatment of any condition.

While the possession of the roentgen as a unit of quantity measurement has been a blessing to radiologists, it has also been somewhat of a curse. Many clinitions still feel that they should know all there is to know about medicine and that even the highly specialized field of roentgen therapy should be within their domain. When the terms used to describe radiations were multiple and vague the clinitions seldom attempted to prescribe doses of x-ray, but since the roentgen has been available it was an easy unit to talk about and hence too frequently patients are sent to the radiologist with the request that they be given so many roentgens per day for so many days, just as they might be sent home with a bottle of medicine and told to take so many drops per day for so many days. Unfortunately the "roentgen" is not even as inclusive a term as the word "drop" and the application of radiation therapy is still more of an art and science than the mere giving of a certain quantity without any reference to the place to which it is to be delivered, the type of radiation, or the variations in the response of the patient or the tumor.

X-rays, as all of you know well, are not all identical. The variations are spoken of as variations in the energy of photons, comprising the rays, or variations in the wave-length comprising the waves. Thus as light has varying qualities which to the human eye are apparent as colors, so x-rays have various qualities, but they are somewhat more difficult to detect. As mentioned before the early measurements of x-rays were a compound of quantity and quality of the rays. Thus Freund in describing the radiations he used for therapy stated that they were such that they permitted the hand to be photographed in one minute. The common practice in the early period was to place the hand between the x-ray tube and the fluorescopic screen and judge the brightness of the image. The voltage of the exciting current to a certain degree controls the quality of the x-rays but many other factors play important parts. The earliest measure of the voltage was the spark gap, or the distance through air between two pointed metal rods that the particular current would jump. The method of expressing the quality of the rays as so many inches of spark gap was very prevalent up to the recent past and one still sees occasional reference to it. It was and is an inaccurate method, but much better than just a statement of the apparatus used. More recently a much more accurate spark method has been devised. Using spheres of specified size for each voltage range it is possible to determine with reasonable accuracy the voltage across a tube.

The most logical procedure would seem to be a direct measure of the voltage applied to the tube but instruments for this purpose have been found to be very difficult and expensive to construct and not too accurate when handled by the inexperienced. When transformers came into general use voltage meters on the primary circuit and so-called "pre-reading voltmeters" came into general use. A pre-reading voltmeter is simply a voltmeter on the primary side which is calibrated to indicate the high voltage current that will result from that low voltage imput. The commonest expression of quality of x-ray has been the kilovoltage or "kv". Since, however, kilovoltage tells only the shortest waves present and not the proportion of these to other waves, by itself it is quite an inaccurate method of specifying quality.

For therapeutic purposes what one really wants to know is how much of the radiation penetrates to the depth of the tumor. In other words, how penetrating is the radiation. As early as 1902 Benoist introduced a penetrometer which determined the amount of radiation that would pass through various thicknesses of metal. In 1913 Christen introduced a method of describing quality by what he called the "half-value" layer. One of the objectives was to obtain a single term that would suffice. The half-value layer is that thickness of a metal which will decrease the intensity of radiation beam by one-half. This is now the commonest method of expressing the quality of radiation. By agreement specific metals are used as the medium-aluminum, copper and lead respectively as the voltage increases from the 100 to the 200 to the 600 plus ranges. I cannot here go into the inaccuracies of this method but in stating that other methods have been suggested such as Duane's effective wave length, and Singer and Taylor's standard absorption curves which give the quality in what is called "equivalent constant potential" units, it is clear that the physicists, if not the physicians, are not satisfied with the present method of describing the quality of the beam of x-rays in general use.

METHODS OF THERAPY

Having so hastily traced the physical data underlying therapy, the methods of therapy as they have changed with time shall now be followed.

Roentgen himself made no suggestions regarding therapy, but before his third communication was read many had suffered from x-ray burns and some treatments had already been given. At first it was necessary to give "experimental" doses and see what would happen, then treat again and wait. The first tubes used had low and irregular outputs so that treatments were very prolonged and irregular in distribution. Over the years, experience with x-ray therapy accumulated. At first it was purely individual experience. Later, as equipment became more standardized and methods of describing and reproducing doses improved, collective experience became possible. It is difficult to trace any theories of treatment in the early days. It was largely a trial and error procedure—accomplishing much good. Several steps forward based on the interaction of physical, biological and clinical facts can be seen. As early as 1903 Williams advocated having the tube close to the patient for skin lesions and further from the patient for deeper lesions because the effect in the depth was greater relative to the skin effect the farther the tube was from the skin. The problem of the best distance of the target from patient has been one of great interest ever since. Since the intensity of radiation decreases very rapidly with increasing distance, it was impossible to treat at very large distances while the output of tubes was low. Now that the manufacturers provide whatever energy is needed it becomes a matter for the radiologist to decide what is best. The gain in depth dose becomes progressively smaller as the ratio of the tube to the skin distance to the skin to tumor distance gets greater. The law of diminishing returns may be said to apply.

As was mentioned above, all beams of x-rays as they come from the x-ray tube contain rays of all energies many of which are not useful except when needed to treat very superficial lesions. Very early in the use of x-ray, grounded sheets of aluminum were placed between the x-ray tube and the patient. These, however, were put there for the purpose of eliminating electrical effects. It was not until 1904 that specific mention was made of studies of aluminum filters for the purpose of cutting out the undesirable low energy x-rays. This original study was made by Perthes, but with no apparent connection Pfahler in 1905 started the use of the leather filter. Pfahler's argument was essentially that leather being similar to skin would absorb the same quality of rays as were being absorbed in the skin and hence would decrease the skin reaction while leaving the underlying reaction the same. Following Pfahler's example many of the radiologists of this country adopted leather as the first filter and, therefore, the first means of improving the quality of the rays.

From the work of physicists, it became obvious that the more energetic rays known as the "harder" rays or the short wave length rays could penetrate deeper into the tissues before being absorbed than the low energy rays, and thus the principle slowly evolved that for treating superficial lesions no filter was needed, but for deeper lesions increased filters were needed to stop the low energy rays which would reach the depths at which the effects were desired. After the leather filter was adopted, glass filters came into use and aluminum filters. The physical investigation of the factors concerned in the absorption of x-rays by metals finally lead to the evolution of what may be called scientific filtration. It is not possible to enter into further discussion of this here except to state that it is now the accepted practice to use aluminum filters for superficial therapy, copper or tin and copper filters for the 200 to 400 kv therapy and lead filters for the higher voltages. In each instance the filter is more complex than the simple statement above.

The fact that x-rays must be penetrating to the depths of the body as well as affecting the surface was evident from the early reports. Dr. Voight of Hamburg, Germany in February 1896, and Dr. Depeignes of Lyons, France in July 1896 treated patient with deep seated cancer. In both instances they reported the relief of pain and a general improvement of the patient. However, it was not until Senn treated the enlarged spleen of a leukemic patient in 1903 with a subsequent marked shrinking of the spleen that it was realized generally by the medical profession that the effect went deeper than a few milliameters.

The method of irradiating deep seated lesions was slow in developing. The early techniques were to apply the x-rays directly from the surface nearest to the tumor. In 1903 Dessauer suggested a technique of multiple tubes placed at different points around the patient so as to uniformly irradiate the whole body. While this method did not receive very general acceptance, it did lead to the principle of aiming the x-rays at a tumor from various points on the surface. This is now universal practice and is known as the "cross-fire" technique.

In the second decade of the 20th century a large amount of physical research was done on the penetration, scattering and absorption of x-rays in various materials, including tissues and tissue-like materials. It was not until such studies were well in hand that the radiologist could get any great concept of what was happening to the radiations entering a patient. In 1918 Kroenig and Friederich measured the decrease in the intensity along the center of the beam, and in 1922 Glasser published curves showing the distribution of intensity within the tissues by means of lines connecting the points receiving equal doses. These he called "isodose curves". Such measurements together with the increased voltages, better filters and better understanding of target skin distances now permitted well versed therapists to plan and deliver known doses to any desired spot in the body. Moreover, through the work of Quimby and others it has become possible to speak more accurately of the actual quantity of radiation absorbed in the tumor by the use of the term "tissue roentgen".

Whether a given dose of radiation should be administered all at one time or in divided doses over a period of days has been a problem confronting radiologists almost from the beginning. In the first months, because of the low output of the tubes, it took a long time to administer any dose and therefore it was necessary to divide the doses up into several sittings. As apparatus improved it became possible to give massive doses in short times even to deep seated lesions. Seitz and Wintz in 1920 advocated the use of such massive doses. They stated that from 130 to 150 per cent of the doses necessary to cause a skin erythema was a cancerocidal dose if given at one time in a short period. We all wish that they had been right. History does not record how great a part the severe reaction of the patient to this massive dose technique played in its rejection in this country. Before the war it was still being used in Germany with slight modifications, even on the super-voltage equipment, but I personally do not know any place in this country where it was the method of choice for deep seated lesions.

Biological investigations have influenced the course of therapeutic measures since 1903 when Heinecke found that there was a selective action of x-rays on tissues and that the lymphoid tissues seemed to be the most sensitive. In 1904 Bergonie and Tribondeau studied histologic pictures of the rats testicle after irradiation and formulated their "law" which has tremendously influenced radiologists ever since. "Immature cells and cells in an active state of division are more sensitive to the radiation than are cells which have already acquired their adult morphologic and physiological characters". Such studies formed the basis for the belief that there was a good reason behind the observed fact that x-rays were having affects on cancer and other pathological cells.

In 1914 Regaud studied the effects of varying doses and varying times of administration on the testicles of rabbits. He found that when he protracted each sitting and fractioned the dose to several sittings days apart, the cells of the testicle were affected to the same degree as when the same total dose was given all at one time, but that the skin was not damaged nearly so much. Drawing an anology between these growing and reproducing testicular cells and cancer cells, he devised a method of treating with radium. In 1920 Coutard adapted this to the roentgen ray therapy of cancer of the region of the throat. In 1926 Holthusen on the basis of clinical experience and studies of the total time necessary for all cells of a tumor to divide, concluded that, "There is evidence of an enhanced summation effect of partial doses."

Several other techniques of divided doses were tried based on different theories such as rate of recovery of various tissues. The same practical observation however came from all of them, namely that by giving treatments daily for many days the skin could tolerate much greater total doses, but many tumors could not.

Many tests were made with animals and with human skin to study the effects of various methods of fractioning the dose. It is generally concluded that each tissue has its characteristic response and so does each tumor. Hence a very complex situation exists. One has to treat a tumor of unknown response through tissues of varying degrees of sensitivity and find the method that will do it best.

What might be called the modern method of therapy of deep seated lesions might be described in the following way. Deliver a known number of tissue roentgens to all parts of the tumor by a cross-fire technique using the optimum voltage and filter for the best depth dose at the site. The dose should be given over a variable period of from one day to 60 days depending on the expected reaction of the tumors gauged by past experience. Protraction, or the use of low intensities for long treatment periods has largely been discarded in this country.

The problem of the proper voltage has been acutely before radiologists for the last ten odd years. Apparatus is now readily available for voltages up to two million. It is always hard to evaluate clinical results when statistical fluctuations are great, and numbers of patients relatively small. Any opinion now is necessarily individual and not a group opinion. I still believe that properly used 200 kv therapy can cure as many or nearly as many deep-seated cancers as any higher voltages tried to date, but to do so requires great skill on the part of the radiologist and considerable endurance on the part of the patient. Voltages from 400,000 to one million can do the job more easily and with less reaction on the part of the patient.

The considered judgment of the past is, I believe, that superficial lesions can best be treated with low voltages and that 200 or 1000 kv therapy is of increased value only when deep effects are needed.

In the above discussion, it has been more or less assumed that the treatments were directed at cancer. By far the largest field of effort of the radiation therapist has been in the treatment of malignant diseases. While everyone hopes that some better method of treating cancer than either the surgical or radiological will be found, never-the-less these two methods, going hand in hand, are producing many good results and are the most satisfactory methods available at the present time. It must not be forgotten, however, that radiation therapy has a much wider field. There are about 80 skin diseases which are either best treated with radiation or in which radiations act as a valuable adjunct to other methods of therapy. X-ray therapy is used with sufficiently satisfactory results to justify its continued use in some 400 diseases.

Many of our medical confers accuse us radiologists of embracing too large a field and expecting the x-ray therapy to act on too many different conditions, but the fact that radiations which do cellular surgery favorably affect so many conditions is not any stranger than that gross surgery should be of usefulness in a wide field.

From the faltering steps in the first months after Roentgen's discovery, radiologists have developed x-ray therapy from an infant to a strong, husky adult. In the early days the problems were to procure equipment that would work satisfactorily and give reproducible results. Later on the physicist entered the field and made the proper administration of radiation a more scientific but more complex one and now with a large amount of biological background is it any wonder that with all these complexities it has been necessary to develop specialists in radiology. At the present time a good radiologist must have a background of knowledge of the physical factors involved in the transfer of radiant energy to human tissue and of the biological and clinical actions of radiation; must have a good grasp of pathology; must know his general medicine and of course must be a good diagnostician. I am convinced that the specialty of radiology is ripe for a division into its two logical parts—diagnostic radiology and therapeutic radiology.

Biological and clinical studies have shown that radiations can influence intra-cellular physiology and biochemistry by direct and indirect action and that it can by selective action perform a complete removal of certain cell types. Is it any wonder that so many diseases can be altered.

The men who have guided the application of the roentgen ray to medicine have been primarily physicians. To absorb the contributions of the biologists, chemists and physicists, engineers and pathologists and apply them to the diagnosis and treatment of disease has been an absorbing task. It is no wonder that specialization was required. The fruits of the radiologists' efforts since 1895 have been abundant, the more so because so many of them in addition to their medical education have also been practicing physicians before specializing. In the near future, with the new developments now to be discussed still further specialization will undoubtedly develop. The lesson from the past to be clearly remembered in the future is that no matter how highly specialized any radiologist becomes, if he is to be useful in applying this new knowledge to the field of medicine, he must be first and foremost a physician.

Let us return again to the night of November 8th, 1895. What Roentgen discovered on that night was not a method for medical diagnosis, nor a means of treating disease but the first recognized evidence of a new and unexplored scientific domain. Something passed from the activated Crookes tube to the barium platinocyanide crystals through materials that ordinarily stopped light. The stimulus given to physics by this phenomenon has proved to be more important than the medical applications. Let us follow the flow of events that may be said to have started at that time. Roentgen noted that these "rays" ionized air and allowed charges of electricity to flow away from charged bodies. J. J. Thompson investigating this phenomenon discovered electrons and learned much about their behavior. The tremendous field of electronics with radio and television was thereby opened up. Without stopping to mention all the scientific advances involved, one can say that electronics through radar and the proximity bomb played a vital part in winning World War II.

Roentgen noticed that the glass of the tube struck by the beam of cathode rays fluoresced and that it was from this spot that the x-rays seemed to pour forth. Becquerel wondered if it might be the fluorescence that caused the x-rays and started re-investigating some fluorescent uranium salts he had prepared fifteen years before. During these investigations he discovered that uranium emitted rays that behaved much like x-rays. The further work of this scientist and that of Rutherford and Villard revealed that there were three kinds of "rays", one like the x-ray called gamma-rays, one like the cathode rays called beta-rays, and a third less penetrating but more ionizing than the others called alpha-rays. We now know that alpha rays are rapidly moving nuclei of helium, beta rays are fast moving electrons, while gamma rays are very penetrating x-rays. Substances which give off any of these rays were called "radioactive".

The discovery of radioactivity lead to even more far reaching events than the study and use of the rays, because it upset man's idea of the construction of the universe. Prior to this time the atoms of each substance were considered to be indivisible. Now, some atoms were found to be going to pieces and in the process atoms of different but known elements appeared. From one atom of radium came out a small piece which turned out to be the nucleus of a helium atom, and the large part remaining was the nucleus of the atom of the gas, radon. The original radium had spontaneously turned into radon and helium.

In addition to the transformation, the particles coming out of the radium had tremendous energy. Rutherford decided that with such energetic particles it might be possible to break up atoms and so using the alpha particles from radium to bombard nitrogen, he changed a few atoms of nitrogen into an equal number of atoms of oxygen and hydrogen. It began to appear as if all atoms were made of the same material in different proportions.

By the efforts of different people in different countries it was finally established that atoms were made up of a central nucleus and surrounding electrons. All electrons were the same but the atoms of each element had a characteristic and constant number. Moreover nuclei were made up of protons and neutrons, each element having a definite number of protons in its nucleus but a slightly variable number of neutrons. Protons are the nuclei of hydrogen atoms. Neutrons do not occur free in nature. They must be knocked out of atomic nuclei. After these facts were established and it was shown that all atomic nuclei except that of hydrogen could be broken up, new methods of breaking or changing them were sought. Apparatus such as the cyclotron, the Van de Graff generator and the betatron was developed by which electrons, neutrons and various atomic nuclei could be hurled with great energies at other atoms. Neutrons were found to be extremely useful missiles because having no electric charges they were not deflected by the electric charges of the electrons and atomic nuclei in their path.

It was found that many nuclei when changed from that of one substance to that of another or when internally altered without changing to another substance, became radioactive and like naturally radioactive elements, gave off one or more of the three radiations—alpha, beta or gamma. These became known as artificially radioactive substances. They could be produced best by the cyclotron before the war and many were available in small quantities and were being used for research and therapy in medicine, but more of that later.

It was expected from physical considerations that neutrons would be valuable for therapy of cancer, possibly being more effective than roentgen rays or gamma rays. At California we were just beginning to evaluate neutron therapy when the war interfered.

The war interfered because of the need of the cyclotron for more urgent work. Neutrons and other atomic missiles were required in the scientific war.

It was found in 1939 that if uranium was bombarded with neutrons, some of the atoms flew apart into two completely different atoms of about equal weight, but that the combined weight of the two did not equal that of the original uranium atom. This phenomenon is called fission. Whenever it occurred some mass is lost. Years ago, Einstein in working on theories that most of us didn't understand and thought were of little practical value worked out an equation that showed that if mass disappeared the energy which would appear would be equal to the mass multiplied by the square of the velocity of light. Hence it was obvious that the disappearance of even a very small amount of mass would create enormous amounts of energy. In the splitting of uranium such loss of mass was happening and hence undreamed of energy was being set free. The bursting or fission of a uranium atom is over ten-million times more violent than the bursting of a molecule of a modern high explosive.

By many experimental steps it was found that it is only one of the three isotopes of uranium that undergoes fission, U^{235}, and that not only was energy given out but that more neutrons were given out. Thus once fission of a U^{235} atom occurred spontaneously or for other causes, if plenty of U^{235} atoms were present or if properly placed, they would capture some of the neutrons and divide and give out more neutrons and so on. This is called a chain reaction, each link producing energy and materials to cause the next. When such a chain reaction is uncontrolled it causes an explosion such as that over Hiroshima, but if controlled it could be put to useful work.

The problem of first magnitude was to show that a chain reaction could occur and if possible that it could occur with the natural mixture of uranium isotopes. This was done by piling uranium metal, uranium oxide and graphite in a definite way. The first "pile" to start in operation was in the West Stand of Stagg Field at the University of Chicago on December 2nd, 1942, a date as important as that of the Alamogorda explosion. I may say here that the health-physicists were a busy group when the first pile started to operate and we were not sure what radiations the operators or the people on the street would receive—but we did know that the "pile" could be controlled and kept to safe limits.

The $Uranium^{235}$ is the fissionable material, but the $Uranium^{238}$ is not passively present. It captures some neutrons and becomes $Uranium^{239}$, which decays by emitting beta rays to $neptunium^{239}$ and $plutonium^{239}$. $Plutonium^{239}$ is extremely valuable because not only is it fissionable like $uranium^{235}$ but also being different chemically from uranium it can be separated by chemical means so as to get a very pure fissionable material. If piles can operate at high levels lots of plutonium could be made—but in the same process tremendously active radioactive materials were produced.

Now, where does this connect with our beginning—the discovery of roentgen rays? Let me recall to your mind that Roentgen announced his discovery on December 28, 1895. Less than one month later, a Chicagoan was seeking a cure for his x-ray burns. By 1900 Codman was able to collect records of 170 cases of x-ray injuries and no doubt many more were never recorded. Dr. Percy Brown collected the cases who had died as a direct result of x-ray exposures and found 28 in the period up to 1935. The suffering of untold hundreds of persons that have not resulted in death is nowhere recorded. The radium industry, especially that branch engaged in painting instrument dials with luminous paint has taken its toll. Hospital and laboratory workers with radium have been effected. The pain and suffering not always ending in death was sometimes worse than death itself. Physicists, physicians, manufacturers, technicians and engineers were all involved in an unnecessary sacrifice for science. Hickey wrote graphically of these pioneers' experiences as follows: "It would seem as if the genii who guarded the special storehouses of radiation resented the invasions of these tireless workers (pioneers in Radiology) and invoked on them the curse of suffering and a tortured deathbed."

There is a Latin Proverb, "Happy is he who gains wisdom from another's mishap". Some of the first scientists to work with x-rays profited by their associates' experiences and protected themselves. Many of the scientists who started the project of making a nuclear chain reacting pile, especially Dr. A. H. Compton, were well aware of what had happened in the past. To go ahead with this project meant the creation of amounts of radioactive materials beyond all previous power of imagination. It meant the creation of tremendous numbers of fast neutrons about which little was known from the protection angle, and of slow neutrons concerning which no biological data was available. Neutrinos and mesotrons were possible hazards suggested in the opinions of some physicists. So a health division was formed in the project with a threefold purpose:

First—to see that the workers were not harmed

Second—to see that the "public" was not harmed

Third—to better understand the method of operation of the various radiations and radioactive materials on living material. Such an understanding should lead to methods of early detection of radiation damage and methods of treating over-exposed personnel.

The health activities rather naturally divided into three parts concerned with (1) Medicine, (2) Physics, (3) Biological Research. The Medical section concerned itself with the direct observation of the workers and tests made on them. The Physics section concerned itself with determining the radiation exposures and methods of controlling them. The Biological section studied the action of various radiations and radioactive materials on animals in order to anticipate and prevent or treat the effects of over-exposure in burns.

Why was all this necessary? In its releases through Wm. L. Lawrence, the Army has allowed the following to be stated regarding the chain reacting piles, "In this structure atoms by the trillions are ripped asunder and hosts of new (isotopes of) elements are constantly being created." "The energy emitted in the form of radiations is many thousands of times greater than that generated by all the radium isolated in the entire world prior to the outbreak of war." "Such a gigantic quantity of radiation would kill any living thing in its vicinity within a fraction of a second. The Atomic Pile therefore created the greatest problem for protecting human life mankind ever faced."

Of course there was no operating pile when the Health Division started and the first job turned out to be a study of the toxicity of uranium and its compounds. Up to 1940 the total amount of uranium metal produced in this country was not more than a few grams. Some uranium salts were used in the ceramics industry, etc. Such practical experience as there was would indicate it was nontoxic but the literature seemed to regard it as one of the most toxic elements, and we were going to need it by the tons. We proved both statements to be true. If injected it is highly toxic, but many of its compounds do not get into the body either through the lungs or the gastro-intestinal tract and are therefore relatively safe to handle. Mice placed in a work-shop filled with uranium oxide dust did better than controls in the laboratory.

When the project wanted a "tolerance" or maximum permissible dose of radiations to which personnel should be exposed we naturally took that accepted by the National Bureau of Standards for x-rays and gamma-rays, namely one-tenth of a roentgen. For fast neutron tolerances we turned to such comparisons with x-rays as could be found, such work as that done on the cyclotron at Berkeley. Since neutrons were more effective than x-rays, the tolerance established was .01 n (the unit of measurement for neutrons). However, neither the .1r nor the 0.1 n rested on a very firm basis. Now that thousands of people were to be involved and millions of dollars of expenditures were to be made, it seemed wise to start new experiments. In general the biologists found that .1r has a factor of safety no greater than 10. The ratio between x-ray roentgens and the fast neutron "n" unit for gross effects on mammals is between 6 and 8, thus justifying the one-hundredth of an "n" as tolerance.

The so-called "fission products" are a group of radioactive isotopes of 30 or so known elements (8.17) occurring near the middle of the periodic table. The minor dangers from these came from their being handled in the laboratory with attendant inhalation or ingestion problems, or danger to the skin and body from external radiations. The major possible dangers were (1) burning up of a pile, (2) enemy sabotage, blowing up chemical solutions containing large amounts, and (3) enemy uses of these by-products in radioactive warfare. Wigner and Smythe concluded that, "fission products produced in one day's run of a 100,000 kw chain reacting pile might be sufficient to make a large area uninhabitable." (4.27) While we briefly considered the idea of such a use and rapidly discarded it—we had to consider that the Germans might use it.

How those elements produced by fission could get into the body, what tissue they would locate in, how soon they would be excreted and what damage they would do, were all studied. As an example it was found that radio-strontium can enter through the intestines or the lungs, that it goes mainly to the bones, that it can cause bone tumors and lymphatic tissue tumors and that known amounts can kill 50% of the animals in 30 days.

The obtaining of plutonium, element 94, was the objective of the Metallurgical Project. It was a new element not made before December 1940, and by the end of 1942 there were only about 500 micrograms—not enough to make the head of a pin! (6.34) Since this was all needed for chemical studies none of it could be wasted on animals. After the Clinton pile went into operation and grams of the material became available, micrograms were spared for biological study. It was found that it can enter the body through the lungs and, in very small amounts, through the intestines. It locates mostly in the spleen, liver and bones, and because of either its chemical effects or alpha activity (7.35) it is very poorly tolerated by the body, 1 microgram probably being the maximum permissible dose.

Among the other radioactive substances that caused worry were xenon, and iodine (7.35). Xenon is a gas that combines with no other element. Hence the only way to dispose of it was by dilution in the air. Very little was known about the mixing of gases from a stack in the air. During the war, because of physical and chemical conditions it was not possible to collect enough radioactive xenon to properly study its effects, but by very accurate measurements it was possible to tell that not enough radiation from it was in the atmosphere near any plant to harm anyone. Radio-iodine had already been studied to some extent before the war. It was known that it could concentrate in the thyroid gland. So far no detectible amounts have entered the thyroid glands of workers.

It would take hours to tell of all the substances studied and the results obtained. The tremendous concrete chemical extraction plants at Hanford Engineer works where the metal from the pile is chemically treated without being seen by the human eye till the radioactivity has been reduced to safe limits; the handling of plutonium in closed hoods, the immense protection shields around the piles all bear evidence to the care taken of the workers. The underground storage in tanks of the fission products, the testing of all waste water for radioactivity and the monitoring of the air all indicate the safety precautions for the community at large.

The possibility of river pollution with radioactive materials brought up the question of the effect of radiation on fish. While this is being studied, it is certain that the amounts entering any river have been so small that they could not damage any living thing.

The effects of radiations on specific organs have been studied by selecting radio-elements that will localize. Effects on the lung are being studied by elements that stick in the lung and do not pass through into the body. Those on the gastro-intestinal tract are studied by feeding radio-elements that pass through without absorption and that have such weakly penetrating radiations that they do not affect adjacent organs. Elements like radio-strontium that localize in the bones are being used to discover what effects are produced there. Several volumes will be required to publish the results of all the work.

All of these studies have been centered around safety in producing the material for atomic bombs. They also throw some light on the biological action of the bomb. There has been considerable confusion in the public press between radiations and radioactive materials. Radiations are atomic particles or photons in motion. Each ray appears and disappears very rapidly. Radioactive materials are those which continue to give out radiations for varying periods of time. When a bomb of either uranium^{235} or plutonium^{239} explodes a tremendous amount of energy is suddenly released. Some of the energy is in gamma-rays and some in fast neutrons, both of which disperse very rapidly. At the same time a stupendous amount of energy is left in the new fission products in the form of potential radioactivity and this is released subsequent to the explosion, very rapidly at first and then more and more gradually for long periods of time.

The newspaper reports and the reports of returning scientists indicate that many Japanese were damaged by the radiations released at the time of the explosion of the bomb. Some died quickly and others over a period of weeks. The latter had their hair fall out, developed diarrhea, bled from various surfaces, developed ulcerated throats, had their blood cells destroyed and in other ways resembled animals whose whole bodies were exposed to lethal doses of various kinds of radiations. The radio-active fission products, on the other hand, apparently nearly all went up in the over-heated cloud and were diluted in the upper atmosphere. It is clear that just as people died from and were injured by pressure waves and heat waves, so they died from and were injured by radiation waves at the time of the bomb explosion. Fortunately or otherwise, as you care to view it, the tremendous radioactivity of the fission products themselves was wasted by going off in the cloud. Had the bomb exploded nearer the ground conditions might have been different.

Now let us turn to the constructive side. Surely the atomic age has such a side for medicine. What do we mean by the atomic age? As now used the atomic age is synonymous with atomic bombs and started on July 16th, 1945 at Alamogorda. Atomic bombs have nothing to offer except stimulation in discovering how to treat people over-exposed to radiations. Most people really mean the age of Atomic Power—power obtained from nuclear chain reaction. That age started on December 2nd, 1942. Several controlled chain reacting units have been built since then and it is obvious that they can provide the following:

1. An abundant supply of the particular radioactive isotopes formed in the fission process.
2. A supply of such other radio-elements as can be made by bombardment with neutrons of the energies available.
3. A source of slow neutrons.
4. A source of fast neutrons.

All of these were available before chain reacting piles came into existence but in quantities so small as to be very limited in distribution and usefulness.

While trying to anticipate what these tools are going to mean to biology and medicine in the future, it is well to remember that the usefulness of the discharge of electric currents through rarified gases and so-called vacuum tubes was at one time a pure research problem where knowledge was sought for the sake of knowledge. Not one of the early experimenters even thought of the roentgen ray. Even after Roentgen had discovered the x-ray many people thought of it as a tool which would be useful for locating fractures. I do not mean to imply that the use of radioactive materials and neutrons will of necessity create such a change in our medical procedures as have x-rays, but I do feel that there is a definite probability that such will be the case.

The use of artificial radioactive materials for research in medicine and biology is probably the field in which it is easiest to see the usefulness of the new tools. As stated before, many radioactive isotopes were available from cyclotrons before the war, but the limited quantities controlled the type of research done and the number of people that could obtain and work with them. The conservatism of the medical profession in adopting new tools, the same conservatism that was slow in using clinical thermometers, stethoscopes and antiseptic techniques has also played its part here.

Radioactive phosphorus and the non-radioactive isotopes of nitrogen, carbon, oxygen and hydrogen have already been used with conspicuous success in determining the mechanism of many complex steps in metabolism. They have thrown considerable light on how single atoms are exchanged in living material for other atoms, even in such apparently permanent structures as teeth and bones. The use of radioactive carbon in studies of plant and animal metabolism offers the greatest possibility of advance in the understanding of life processes. Carbon^{14} is desired because of its long half-life. The use of very short-lived carbon isotopes has already radically changed the knowledge of photo-synthesis. Using piles, Carbon^{14} can be made in much greater quantities than before and with this isotope the processes of photosynthesis can be further elucidated. No life at all would be possible on Earth if we did not have plant life to synthesize organic matter from the non-organic materials of carbon dioxide and water. Just what significance the understanding of this process will have cannot be foretold. In animal life very little is known about the mechanism of fundamental life processes. Many of these will undoubtedly become clearer when we can trace the tagged radioactive atoms of carbon.

The use of nitrogen and sulphur in the study of protein metabolism offers possibilities of great significance. Phosphorus, strontium and iron have already been used to good advantage and the field of their usefulness can be greatly expanded. There are numerous elements in the body which are required in very small amounts and whose exact usefulness is not clearly understood. Such of these as boron, manganese, cobalt, etc., can be investigated better with radioactive isotopes. It is reported that the sheep in New Zealand died for lack of cobalt and yet the role that cobalt plays in metabolism is unknown. Copper is known to be an important, if small, ingredient in the human body and yet its function is not clearly understood. Radio-copper can probably be of great value in this study.

The use of radioactive materials in pharmacology offers a very wide field for expansion. It should be possible to follow, as has been done in a few instances, the course of drugs and thereby gain a better insight into why and how they act.

The use of radioelements in the field of therapy is one that still requires a large amount of work. The place of radio-phosphorus in the treatment of leukemia is well established, but with larger quantities available, larger numbers of patients can be treated by different physicians using various techniques of administration. The use of radio-strontium in the treatment of metastatic carcinoma in bone and for other diseases can now be tried in a much larger field than was ever possible before. Radio-iodine which has already proved its usefulness in certain cases of hyperthyroidism can now be used in much greater quantities. These are the obvious things.

One of the hopes for the future is that some chemical may be found which will lodge in cancer cells, at least in much greater concentration than in any other type of cells. If such chemical is not by itself able to kill the cancer then a radio-element may be attached to it and thus a more effective means of treating cancer may be developed than anything known before. The effectiveness of this would lie in the fact that the distant-metastases as well as the primary lesion would be attacked.

Another field in which radioactive materials from the pile can be used is that of substituting for radium. Elements such as tantalum and cobalt can be placed in the pile and made radioactive in such a way that they give off gamma-rays of high energy. By this means it will be possible to make treatment bombs that will contain hundreds of curies rather than our present small bombs of 2 to 10 curies of radium. Whether such methods will offer any advantage over the million to 20 million or 100 million volt x-ray machines, which are possible now because of developments of transformers, tubes and betatrons, remains to be seen. There is also the possibility that needles could be made of tantalum and kept activated in a pile until desired for use. For interstitial therapy these could replace radium, but since the activity remains in them much longer than in radon they could not replace that gas. However, radiations of various penetrations will be available from different radio-elements so that those therapists who wish to use such varying energies will have them available for any use they care to make of them.

The use of radioactive materials in diagnostic procedures in medicine will expand as these materials become more available. The uptake of radio-iodine by the thyroid gland has been shown to be characteristic in various types of pathological conditions of that gland. More recently the usefulness of radio-sodium has been established in diagnosing the extent of defective circulation in the extremities in such conditions as immersion foot, arteriosclerosis and thrombo angitis obliterans. Many similar procedures will undoubtedly follow in great profusion when the radioactive elements become available.

Fast neutrons have been used for the treatment of human malignancies since 1938 and some biological experimental work was done before as well as since that time. Two hundred forty-eight patients with presumably incurable cancer were accepted for treatment between September 1939 and February 1943. Twenty-six of these were still alive in June 1945. These inconclusive statistics coupled with clinical experience indicates that neutron therapy has been of value but since it has been used under the direction of only one radiologist and no technique given a fair trial, I believe it desirable that fast neutron therapy be further investigated. Data obtained by the physicists indicates that more penetrating neutrons than those already used will be needed to effectively treat deep seated cancer.

The fastest neutrons available from the pile are still in all probability not energetic enough to be of value for anything except the therapy of superficial lesions. We will still be dependent upon cyclotrons for more penetrating neutrons. Just what therapeutic value slow neutrons will have is not yet clear. One method of using them was suggested a few years ago. The element boron captures slow neutrons and immediately emits an alpha particle which would produce dense ionization for a very short distance. If it could be caused to localize in tumors and the individual then placed in a beam of slow neutrons, possibly even the small number that penetrate to the necessary depth in the body would cause sufficient disruption of the cancer cells to kill them. This possibility deserves further investigation.

It is apparent that the age of using nuclear energy was already here and being used by the Medical profession before a chain reacting pile was started. The science of nuclear change started when Becquerel, stimulated by the work of Roentgen, discovered that it was not the fluorescence of uranium, but the rays coming naturally from it that caused changes in photographic plates. The discovery of radium by the Curies provided the first source of nuclear energy for medical and biological uses. The discovery of the phenomena of artificial radioactivity widened the field and the discovery of the cyclotron was a great stimulus to its advance, because it increased the number and quantity of available radio-elements. Now the atomic power machines, by which is meant those machines utilizing the energy from atomic nuclei to keep them in operation, have again expanded in an unlimited way the possibility for usefulness in research and therapy of radioactive isotopes.

From a continuous stream of scientific development, which in 1895 centered in Roentgen and in 1945 in atomic power, have come numerous side streams that have proved of extreme value to biology and medicine. Those who have taken part in all of this research have usually been limited to narrow and restricted fields because the minds of most men are so limited in scope that they can encompass only a small portion of any field. The development of each separate portion has required specialization both as to the broad fields of science and as to the narrower sub-divisions. It has been necessary to have physicists like Roentgen and Compton to interpret the physical aspect of radiations, and medical men to adopt these to medicine, and within the medical profession, the radiologists, specialists in radiation who devote their time to the study of the limited field in order that they may use it better for the good of humanity.

On the Atomic Bomb Project we have learned that there must be unlimited cooperation between all those necessary to the advance of the project. The scientists had to discover the fundamental facts, the industrialists had to take these from the laboratory to the factory, the laborers had to carry out the plans and the whole effort was coordinated by the Army.

To apply the science of radiology in the field of medicine, the radiologist must use the principles developed by the physicists and chemists, and the apparatus developed by the industrialists, the knowledge acquired in medical school, and apply it to the patients selected by the general medical profession. Such science knows no nationalism. Roentgen, a German, discovered x-rays; Becquerel, a Frenchman, discovered natural radioactivity; Rutherford, a Canadian, determined the kinds of radiations; Thompson, an Englishman, discovered the electrons; Lawrence, an American, discovered the cyclotron. Thus we see that the progress of science jumps from country to country and advances are swift when the free interchange of scientific information is possible throughout the world. The Atomic Age is an international development. A some one has said, "Let us not close the door, lest we lock out more than we keep in."

Tuberculosis Abstracts

The Fourteenth Annual Report of the Tuberculosis Committee of the American Student Health Association records the success of measures to control tuberculosis practiced by progressive institutions of learning in all parts of the country. The results must not be measured solely by the number of cases discovered. In the age group concerned this will always be small as compared to the general population. The search for cases, however, affords a unique opportunity for health education of both faculty and students. The practical demonstration of how to prevent tuberculosis will influence habits of thought and action long after text-book lessons are forgotten. This should make for closer cooperation between patient and physician the country over.

TUBERCULOSIS AMONG COLLEGE STUDENTS

During the past three years there have been many factors which have interfered with the normal functioning of college health services. Yet the number of institutions having to discontinue their tuberculosis programs has been less than was anticipated. The Committee is confident that as our college enrollments return to normal and adequate medical personnel becomes available, we shall witness substantial progress in college health activities.

Many colleges are now planning for expansion which will provide more adequate health programs. The need for this may be better understood from the fact that less than half of the 886 colleges queried replied at all and of the 886 less than a third had tuberculosis programs. It may be safely assumed that those colleges which did not reply were without effective health programs.

The enrollment at colleges conducting case-finding programs in 1942-43 was 406,626. They reported 522 newly discovered cases of tuberculosis, a rate of 128 cases per 100,000 enrolled students. During the past school year, student enrollment at those institutions having survey programs was 286,018. Yet 622 new cases of tuberculosis were diagnosed, a rate of 217 per 100,000. This represents an increase of 19 per cent in the number of new cases of tuberculosis found in a student population which was 30 per cent below that of the previous year and reflects considerable improvement in the effectiveness of case-finding procedures. Of the 622 cases of tuberculosis diagnosed during the year at those colleges having case-finding programs, the lesions were classified as unstable in 156, quiescent in 151 and 315 were designated as healed. At many institutions the original tuberculosis program was frequently limited to entering students, whereas in recent years it has been expanded to include the entire student body.

There are now 93 universities and colleges which are conducting what may be considered practically ideal programs of tuberculosis control. Seventy-four colleges do routine tuberculin testing and x-ray all positive reactors each school year. Nineteen colleges report that chest x-rays are provided for all students annually, they having dispensed with preliminary testing. The programs of both groups of colleges offer a high degree of protection to their students. Cases of advanced tuberculosis among students at these 93 institutions should be encountered very rarely indeed, with such close supervision.

Reports were received from 114 colleges which do not sponsor any type of tuberculosis program. Student enrollment at these institutions was 121,133. There were 14 students found to have tuberculosis, a rate of 12 per 100,000. On the basis of this year's' experience, therefore, colleges with case-finding programs diagnosed 18 cases of tuberculosis for each case diagnosed at those schools having no program. Such evidence should leave no doubt as to the wisdom of employing modern case-finding methods in every college.

The Committee again believes it advisable to emphasize the need for active treatment in the majority of cases of tuberculosis found among young men and women of college age. Of the 622 new cases of tuberculosis among students 73 per cent of all new cases diagnosed during the year were permitted to remain in college. A considerable proportion of this group may experience progression of their disease and will eventually have to undergo treatment. Considerable time may elapse between the development of a new, unstable tuberculous lesion and the appearance of symptoms. Certainly every student who is found to have tuberculosis of recent development should be given the advantage of early treatment. Only when the lesion is judged to be stable and fibrotic is it justifiable to postpone treatment pending a period of observation.

The college which is attempting to protect its students against tuberculosis should give some thought to the possible dangers of non-student contacts. During the year there were 59 cases of tuberculosis diagnosed among faculty members and other employees and 18 cases among food handlers. Since the number of food handlers employed by a college is relatively small in comparison with the student enrollment, no great expense is involved in providing annual chest x-rays for this group.

The Committee believes there is ample evidence to justify the following statements relative to case-finding procedures commonly employed among college students:

1. The incidence of tuberculous infection among college students is steadily decreasing. The majority of reports from colleges in 1943-44 indicate infection rates varying between 15 and 30 per cent.

2. The two-dose Mantoux method is recommended as the method of choice for tuberculin testing. If a single test dose is employed, an intermediate dose of at least 0.1 mg. O.T., or 0.0001 mg. P.P.D. should be used. The Vollmer patch test cannot be recommended for use in colleges.

3. The Mantoux test is highly dependable in eliciting sensitivity due to significant tuberculous infection or disease. It is sound practice, and in the interests of economy, to provide chest roentgenograms for only those students who react to an adequate dose of tuberculin.

4. Complete protection against tuberculosis for college students cannot be attained through a program limited to the student body. Faculty members and employees, including food handlers, should participate in the tuberculosis control program on the same basis as students.

5. The lesions of pulmonary tuberculosis encountered in college students are, in a majority of instances, unstable and potentially dangerous. The absence of symptoms does not preclude the necessity for early treatment. Students who remain in college having pulmonary lesions, should be under close observation with frequent clinical and roentgenographic studies.

—Tuberculosis Among College Students, H. D. Lees, M.D., The Journal-Lancet, September, 1945.

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THE PLATFORM OF THE AMERICAN MEDICAL ASSOCIATION

The American Medical Association advocates:

1. The establishment of an agency of federal government under which shall be coordinated and administered all medical and health functions of the federal government exclusive of those of the Army and Navy.
2. The allotment of such funds as the Congress may make available to any state in actual need for the prevention of disease, the promotion of health and the care of the sick on proof of such need.
3. The principle that the care of the public health and the provision of medical service to the sick is primarily a local responsibility.
4. The development of a mechanism for meeting the needs of expansion of preventive medical services with local determination of needs and local control of administration.
5. The extension of medical care for the indigent and the medically indigent with local determination of needs and local control of administration.
6. In the extension of medical services to all the people, the utmost utilization of qualified medical and hospital facilities already established.
7. The continued development of the private practice of medicine, subject to such changes as may be necessary to maintain the quality of medical services and to increase their availability.
8. Expansion of public health and medical services consistent with the American system of democracy.

ANNOUNCEMENTS

The Annual Mid-Winter Meeting of the Council of the Nebraska State Medical Association will be held at the Hotel Cornhusker, Sunday, February 17, 1946. The meeting will be called to order at 10 a.m.

19TH ANNUAL MEETING OF NATIONAL CONFERENCE ON MEDICAL SERVICE

Sunday, February 10, 1946
Palmer House, Chicago

9:00 a.m.—Registration, 4th floor, entrance of Red Lacquer Room.

9:30-9:50 a.m.—President's Address, "Medicine and the National Crisis," C. L. Palmer, M.D., Pittsburgh.

9:50-10:20 a.m.—"What Labor Expects from Medicine," Walter Reuther, Vice President, United Auto Workers, CIO, Detroit.

10:20-10:50 a.m.—"What the Farmer Expects from Medicine," J. S. Jones, Secretary, Minnesota Farm Bureau Federation, and Chairman, National Committee for Rural Health, St. Paul. Discussion—Leonard W. Larson, M.D., Member of Committee on Rural Medical Care, American Medical Association, Bismarck, N. D.

10:50-11:20 a.m.—"What Industry Expects from Medicine," Howard Strong, Secretary, Health Advisory Council, Chamber of Commerce of the United States, Washington, D. C.

11:20-12:00 Noon—Open Discussion.

12:00-1:45 p.m.—Luncheon.

1:45-2:15 p.m.—"Medical Care of Veterans," Major General Paul R. Hawley, Acting Surgeon General, Veterans Administration, Washington, D. C.

2:15-2:30 p.m.—"Aims and Purposes of Conference of Presidents and Other Officers of State Medical Societies," Andrew S. Brunk, M.D., President of "Conference of Presidents and Other Officers of State Medical Societies," Detroit.

2:30-2:45 p.m.—Questions and Answers.

2:45-3:00 p.m.—"What About Returning Medical Officers?" "Postgraduate Opportunities," Victor S. Johnson, M.D., Secretary, Council on Medical Education and Hospitals, American Medical Association, Chicago.

3:00-3:15 p.m.—"Establishment of State Bureaus of Information," Mrs. M. Virginia Shuler, Supervisor, Bureau of Information, American Medical Association, Chicago.

3:15-3:30 p.m.—"Medical Legislation," J. W. Holloway, Jr., Director, Bureau of Legal Medicine and Legislation, American Medical Association, Chicago.

3:30-3:50 p.m.—"National Plan for Volunteer Prepayment Medical Care," Jay C. Ketchum, Executive Vice President, Michigan Medical Service, Detroit.

All members of the American Medical Association are invited to attend this conference.

UROLOGY AWARD

The American Urological Association offers an annual award 'not to exceed $500' for an essay (or essays) on the result of some specific clinical or laboratory research in Urology. The amount of the prize is based on the merits of the work presented, and if the Committee on Scientific Research deem none of the offerings worthy, no award will be made. Competitors shall be limited to residents in urology in recognized hospitals and to urologists who have been in such specific practice for not more than five years. All interested should write the Secretary, for full particulars.

The selected essay (or essays) will appear on the program of the forthcoming meeting of the American Urological Association, to be held at the Netherland Plaza, Cincinnati, Ohio, July 22-25, 1946.

Essays must be in the hands of the Secretary, Dr. Thomas D. Moore, 899 Madison Avenue, Memphis, Tennesse, on or before July 1, 1946.

CLINICAL CONFERENCE SPONSORED BY THE CHICAGO MEDICAL SOCIETY

The tremendous success of the First Clinical Conference held two years ago served as a mandate to the Chicago Medical Society for the annual continuation of this type of program. Last year the Conference was called off because of government restrictions on travel. This year the Society has been able to go ahead with its plans and the Conference will be held at the Palmer House, Chicago, Illinois on March 5, 6, 7, and 8.

There will be scientific programs consisting of half-hour lectures beginning at 8:30 a.m. and continuing until 5:00 p.m. with intermissions for viewing the scientific and technical exhibits which promise to be most outstanding.

Speakers have been secured from all sections of the United States and the program committee promises a discussion of the important fields of medicine.

A banquet is being planned for Thursday night when a speaker of international reputation will talk on a topic of general interest.

Reservations for rooms should be made through The Chicago Convention Bureau, 33 North LaSalle Street, Chicago 2, Illinois. It is important that those planning to attend this Conference make their reservations as soon as possible and arrange to room with a friend. Hotel rooms are at a premium. Early planning and reservation will prevent disappointment.

NEWS and VIEWS

At the annual election of the Omaha Mid-West Clinical Society, Dr. J. D. McCarthy was elected president to succeed Dr. J. Jay Keegan.

Dr. G. Prentiss McArdle has been engaged on part time as medical director of the Nebraska Surgical Plan.

Dr. Charles H. Arnold of Lincoln was elected vice president of the United States Chapter of the International College of Surgeons.

It is reported that more than 5,000 young medical officers trained under A.S.T.P. will be called to active duty July 1 to replace medical corps officers eligible for discharge.

The War Department early in January made a bid to interest its war time Medical Corps officers in commissions in the regular army.

Nebraska hospitals, according to recent announcements by Dr. W. S. Petty of the State Health Department, will receive surplus blood plasma that was donated to the Red Cross during the war. The amount available will be based on number of hospitals, population and the number of physicians. Iowa's 500 hospitals have been allotted 5,500 units for the first quarter of 1946.

This announcement in the Pawnee City, Nebraska, Republican, appeared on December 20, 1945. Considering the clinical status of influenza vaccine, one cannot but wonder about the appropriateness of the measure:

> We now have a supply of and are prepared to administer the new army approved influenza vaccine. It consists of but one hypodermic injection and costs $2.50.
>
> The Pawnee Medical Unit,
> At the Hospital.

Following the death of a patient at the Hastings State Hospital the latter part of December, Dr. Nielsen immediately suspended three hospital attendants from duty pending an investigation. According to newspaper reports an autopsy on the body disclosed injuries about the chest, it included a fracture of four or five ribs, a fractured sternum and a ruptured left hip.

It is reported that an outbreak of acute dysentery in the nursery of St. John's hospital in Fargo, N. D., has caused the death of five newborn infants in January.

Brucella melitensis has been found regionally in Iowa according to The Journal of the American Medical Association. Different forms of the disease have been recognized in cattle and hogs in Iowa since 1927, but during the last two years 20 infected patients are known to have acquired it in this state.

The report was presented by Carl F. Jordan, M.D., director of the Division of Preventable Diseases, and Epidemiologist, Iowa State Department of Health, Des Moines, and Irving H. Borts, M.D., director of the State Hygienic Laboratory, Iowa State Department of Health, and assistant professor of hygiene and preventive medicine, State University of Iowa College of Medicine.

Of the 20 patients studied between 1943 and 1945, 10 were packing house employees and the rest were farm workers, farm residents or visitors.

The infection was characterized by fever, chills or chilliness, sweating, weakness, loss of weight, headache, muscular pains and leg pains. In several cases, they also noted a rash, nosebleed, glandular swelling and nasal ulcerations.

The study led the authors to conclude that hogs are probably the major source of infection. "It is probable that Bruccela melitensis has been introduced into Iowa during the past decade, and that this species of Brucella has been transmitted to hogs from sheep imported originally from western and southwestern sections of this country."

PSYCHIATRISTS ORGANIZE TO MEET NATIONAL EMERGENCY IN TRAINING MORE SPECIALISTS AND RELOCATING MEDICAL MEN WHERE PSYCHIATRISTS ARE URGENLY NEEDED

The two leading national orgasizations in the field of psychiatry have united to help meet the critical situation in which the country finds itself as a result of psychiatric problems arising out of the war. In the field of psychiatry, which has always been short of well-trained personnel, there are literally thousands of places where psychiatrists are needed. There also are thousands of medical men who had some experience in psychiatry during the war, and are now seeking training opportunities.

As an initial step in bringing the psychiatrically trained and psychiatrically minded medical men together with the opportunities, the American Psychiatric Association, the oldest specialty society in America, founded more than one hundred years ago, has joined forces with the National Committee for Mental Hygiene, the pioneer organization in the field of mental health, which was founded in 1909. The following official announcement was made by the two organizations.

"The American Psychiatric Association and the National Committee for Mental Hygiene jointly announce the appointment of Captain Forrest M. Harrison (MC), U.S.N.,as Director of a newly established Psychiatric Personnel Placement Service. The service is designed especially to help physicians and psychiatrists make contacts with training opportunities such as residencies, post-graduate courses and fellowships, and to aid institutions in locating suitable candidates for appointments. Physicians interested in psychiatry are invited to send in full biographical statements including personal data, education, training, experience and special desires, in order that this service may be of the greatest possible assistance to them.

Deans of medical schools, superintendents of hospitals, and directors of industrial organizations, clinics and others employing or participating in the training of psychiatric personnel, are invited to submit full information regarding available positions and courses, including financial details.

Foundations, universities and other agencies are asked to report pertinent fellowships in psychiatry, psychosomatic medicine and child guidance.

Inquiries should be addressed to Captain Forrest M. Harrison (MC) USN, National Committee for Mental Hygiene, 1790 Broadway, New York City 19.

HOSPITAL NEWS

ARNOLD: Miss Mildred Burnham, niece of Dr. F. A. Burnham, has taken over the management of the Arnold Hospital.

BEATRICE: A campaign to raise funds for the improvement in the hospital facilities of the community was started early in January. The plan is to buy the old Dr. H. M. Hepperlen home and convert it into nurses' quarters. In this way it is estimated that the Lutheran Hospital could increase the bed capacity by 25.

BURWELL: The trustees of the village of Burwell passed an ordinance to create a hospital board the latter part of December. According to a statement by Dr. Roy Cram, local physician, both funds and personnel are needed to reopen the hospital.

CENTRAL CITY: The Hord Memorial Hospital was recently enabled to relieve the critical shortage of help when two registered nurses agreed to take over direction of work on a temporary basis.

CRAWFORD: Approximately $31,000.00 has been collected in behalf of the hospital fund. At the December meeting of the subscribers it was decided that the campaign for funds be continued.

FREMONT: The Dodge County Community Hospital recently made headlines in the local paper when Dr. C. G. Moore of Fremont described the conditions at the hospital as "deplorable and lamentable." The hospital apparently needs some extensive repairs which the board has thus far refused to sanction.

HAY SPRINGS: The Preble Nursing Home for six years operated by Mrs. Preble on the Preble farm home south of Hay Springs has moved to a new building on Main Street. The new home has a bed capacity of seven.

KIMBALL: The Kimball county commissioners last December appointed a special committee for planning and building a county hospital.

LINCOLN: Due to the shortage of nurses the Lincoln General Hospital was forced to close a part of its surgical floor, according to a newspaper announcement early in December.

RUSHVILLE: Early in December the city council appointed a hospital building board. This board was charged with selecting a site for the hospital and to attend to all other pertinent matters concerned with the construction of a community hospital.

WEST POINT: According to the Memorial West Point Planning Board, the West Point area is suffering from a deficiency of 50 to 60 hospital beds. According to the report a drive for funds for the contemplated hospital has reached the half way mark early in January.

OFFICE OF THE SURGEON GENERAL

SECRETARY OF WAR ORDERS STUDY ON DOCTORS AND DENTISTS RELEASE SITUATION

Personal representatives of the Secretary of War have departed for Europe to make an exhaustive study on the release of Army doctors and dentitsts, Major General Norman T. Kirk, the Surgeon General of the Army, has announced.

Colonel Polling R. Powell, Jr., of the Legislative and Liaison Division, of the War Department General Staff, and Colonel Durward G. Hall, Chief of Personnel Service of the Surgeon General's Office, who have been appointed to serve as personal representatives of the Secretary of War, left Washington December 1 to visit all European areas where Army doctors and dentists are stationed.

Colonel Powell and Colonel Hall have been given full power by the Secretary of War to make a complete investigation of all pertinent facts relating to Army doctors and dentists so that all necessary steps can be taken to expedite the return of all doctors who can be spared.

A similar investigation was recently completed in the Pacific area.

They will determine the medical and dental strength now necessary for each overseas theater so that all surplus professional officers can be immediately shipped out and either be released or assigned to replace doctors who are eligible for release.

Plans are under way for the issuance of radio directives for the return of surplus personnel, and the highest transportation priority will be arranged in order to speed up this program.

In addition to studying the needed strength of doctors in each area, the Secretary of War's representatives will also investigate if there has been any undue delay in returning doctors who have been declared surplus and if so, make recommendations for the immediate correction of such situations.

Another phase of the study will be the determination of number of hospital beds needed to meet present conditions in the European theaters with the idea of releasing unnecessary beds.

An investigation is also planned in this country of Service Forces, Ground Forces and Air Forces installations to make sure that medical and dental staffs are cut as rapidly as their work loads permit, and the discharge criteria are kept adjusted so that those doctors who are actually surplus will be released at once.

In the meantime, the Surgeon General's Office announced that doctors and dentists are continuing to be released as quickly as possible under the new release policy. Figures on the release of doctors at the end of the week of November 30th reached a total of 15,469, which is in excess of the 13,000 quota which had been set for the end of the year. For the same period 3,539 dentists had been separated from the service.

GENERAL LULL LEAVES SGO FOR AMA

Major General George F. Lull, Deputy Surgeon General of the Army, whose notable record in that capacity won him the Distinguished Service Medal, the highest noncombatant award, has retired from the Army after 33 years of service with the Medical Corps.

General and Mrs. Lull will move to Chicago, where General Lull will become Secretary and General Manager of the American Medical Association. He will take up his new duties officially in July, when the retirement of Dr. Orlin West, the present Secretary and General Manager, becomes effective, but he will immediately join the staff of the American Medical Association to familiarize himself with the work of the organization.

The citation for the Distinguished Service Medal stated that ,in his capacity as Chief of the Personnel Service, General Lull was largely responsible for the development of policies and studies which resulted in outstanding achievements in the Army's medical program.

Early in World War I he commanded a base hospital at Camp Beauregard, Louisiana, and later organized and commanded Base Hospital No. 35 of the A.E.F. From 1922 until 1926 General Lull was Director of the Department of Preventive Medicine at the Army Medical Center. In 1929 he was appointed Medical Adviser to the Governor General of the Philippine Islands, where he served for three years. He had charge of the Vital Records Division of the Surgeon General's Office from 1932 to 1936.

The following four years he was Director of the Department of Sanitation at the Medical Field Service School, Carlisle Barracks, Pennsylvania. In 1940 he returned to the Surgeon General's Office as Chief of Personnel Service until May May 31, 1943, when he was appointed Deputy Surgeon General.

Born in Pennsylvania March 10, 1887, General Lull received his M.D. degree from Jefferson Medical College in 1909, a Certificate of Public Health from Harvard Technology School of Public Health in 1921, and his degree of Doctor of Public Health from the University of Pennsylvania in 1922. He is an honor graduate of the 1913 class of the Army Medical School.

REFRESHER TRAINING FOR DOCTORS LEAVING SERVICE

Refresher training of 12 weeks' duration will be given Army doctors leaving the service who desire to brush up on latest developments in fields of medicine, surgery, or neuropsychiatry in which they may not have been actively practicing during the past year, Major General Norman T. Kirk, Surgeon General of the Army, announced today.

This training, which will prepare retiring Army doctors for return to private practice with latest knowledge of medical advances made during the war, will be given at Army hospitals until June 30, 1946. Reserve Corps, National Guard, and AUS Medical Corps officers who are to be separated will be eligible for this schooling.

The election of the period of refresher training is entirely voluntary, and applications may be made through channels to the Surgeon General in the case of medical officers assigned to the Army Service Forces, Army Ground Forces and Army Air Forces. Medical officers returning from overseas may make application for refresher training from the Reception Stations or Separation Centers through the ASF Liaison Officer directly to the Surgeon General. It is pointed out that medical officers cannot be recalled to active duty from terminal leave for the purpose of accepting a professional assignment for refresher training.

Numerous requests have been received by the Surgeon General from Reserve Corps, National Guard, and AUS Medical officers who are about to be separated and who desire to remain in service for a short period of professional duty prior to return to civilian life. These officers are anxious to return to their civilian practices with the advantages of the latest medical knowledge. Due to the tremendous demand for refresher training placed upon civilian medical teaching centers, many of these medical officers have been unable to arrange for refresher training.

The Surgeon General emphasizes the fact that the refresher training is accomplished by a 12-week temporary duty assignment in the professional field of interest at an Army hospital without per diem. Such an assignment will afford the medical officer a period of clinical work under supervision, and excellent opportunities for collateral study of recent advances in medicine, surgery, and neuropsychiatry.

MALARIA RELAPSE RATE DECLINING

The hospital admission peak for malaria relapses in the United States was reached in February 1945, with a total of approximately 6,000 cases, and has been steadily declining since that time, according to a recent announcement by the Army Medical Department.

During 1943, when men began to return from tropical theaters of operations in increasing numbers, the total number of hospital admissions for malaria relapse reached 5,275. By 1944 it had jumped to almost five times that number—28,150, and in the first six months of this year the total was 30,420.

It is believed, however, that the return of troops from malaria-ridden areas will not appreciably affect the downward trend of admissions, for a large proportion of original personnel already has been replaced and returned. Units and replacements sent to these Pacific-Asiatic regions after the middle of 1943 are not expected to show as high rates of infection as those of earlier groups.

FELLOWSHIPS IN MEDICAL RESEARCH

Acting as agent for various national societies, the National Research Council is offering additional fellowships which are available to newly separated Medical Department officers holding M. D. or Ph. D. degrees. These fellowships are in the fields of cancer research and anesthesiology.

Funds for the former are being provided by the American Cancer Society and administered by the National Research Council's newly appointed Committee on Growth. Fellowship stipends vary from $2,000 to $3,000 per year. They are intended for those who, as a rule, are under 34 years of age. Although they are for a period of one year, they may be renewed. A limited number of senior fellowships for older, particularly qualified individuals planning to specialize in cancer research are available for three-year periods with stipends of $3,000 to $6,000 per annum. Applications should be filed before 1 February 1946.

Fellowships in anesthesiology, supported by the American Society of Anesthesiologists are in addition to those in filtrable viruses, orthopedic surgery, and medical sciences described in the October Bulletin. Applications should be filed before 1 July 1946. For further information and application forms, write to: The Chairman, Division of Medical Sciences, National Research Council, 2101 Constitution Avenue, Washington 25, D. C.

AMERICAN MEDICAL ASSOCIATION COUNCIL ON MEDICAL SERVICE AND PUBLIC RELATIONS

DEPARTMENT OF MEDICINE AND SURGERY IN THE VETERANS ADMINISTRATION

With the signing of H.R. 4717 by the President, now Public Law 293, there was created in the Veterans Administration a Department of Medicine and Surgery under a Chief Medical Director. General Bradley announces that he has designated General Paul R. Hawley to serve as Acting Chief Medical Director. This act will bring professional personnel into an organization comparable with the

Army and Navy Medical Corps and the U. S. Public Health Service.

General Bradley immediately authorized the employment of physicians, nurses and dentists to fill existing vacancies. There is an immediate need for 1,125 doctors, 1,200 nurses and 100 dentists.

Among the major provisions are:

1. Specialists certified by VA will be paid 25 per cent more salary up to a ceiling limit of $11,000 a year.

2. Residencies will be set up in VA hospitals where younger doctors may study to qualify as specialists. This will mean that veterans will be able to obtain the most up-to-date medical treatment—the same kind as if they were admitted to hospitals connected with the nation's leading medical schools and centers.

3. Promotions will be made on recommendations of special VA boards which, in general, compare with the "selection boards" operating in the Army and Navy for higher ranking officers.

4. Office of Chief Medical Director. The director will be paid a salary of $12,000 a year. A Deputy Medical Director will receive $11,500 and Assistant Medical Directors—not to exceed eight in number—will be paid $11,000 each.

5. Medical Service. Chief grade, $8,750 minimum to $9,800 maximum. Senior grade, $7,175 minimum to $8,225 maximum. Intermediate grade, $6,230 minimum to $7,070 maximum. Full grade, $5,180 minimum to $6,020 maximum. Associate grade, $4,300 minimum to $5,180 maximum. Junior grade, $3,640 minimum to $4,300 maximum.

6. Appointments of key executives will be for a four-year term, subject to removal by the Administrator for cause. Reappointment will be for the same term.

7. Doctors, dentists, nurses and technicians now employed by the VA will be continued on their present jobs pending determination of their qualifications for appointment in the new medical department.

8. Another provision of the act which will permit professional improvement of VA medical personnel will allow up to five per cent of such employees to study or do research work for periods of time up to 90 days. This will enable doctors, dentists, nurses and technicians to attend recognized schools or work with the U. S. Public Health Service or other research groups. Officials pointed out that this would enable workers to keep abreast with the very latest developments in their respective fields.

9. Although they are not subject to selection or promotion by Civil Service, the members of the new VA Department of Medicine and Surgery will be under the Civil Service Retirement Act of 1920 and will receive its benefits.

General Hawley commenting on the President's action said:

"With the signature of the medical department act, our objective is clear—a medical service for the veteran that is second to none in the world. Around the splendid nucleus of excellent men and women in the VA medical service, we shall build such an outstanding service."

COUNCIL ON MEDICAL SERVICE AND PUBLIC RELATIONS

THE HOUSE OF DELEGATES HAS ACTED

The program for constructive action outlined by state organizations and presented through the Council on Medical Service and Public Relations has been approved. Preliminary planning and much of the groundwork are over. Now is the time to produce definite results. The House at its meeting December 3 to 5 placed heavy duties and definite obligations on the Council on Medical Service and Public Relations. These duties and obligations the Council accepts, though it realizes the difficulties and hazards that lie ahead. The problems are complex and it will be far from simple to arrive at the right answers. However, the challenge can be met and the job can be done with the all-out cooperation and coordinated help of the state medical associations. Here are some of the matters for immediate attention and a word on what is being done about them:

1. Development of a specific national prepayment health program.

The Advisory Committee of the Council is working on recommendations to be presented to the Council and Board of Trustees. Its second meeting was held December 16 and 17 at Toledo, Ohio. This job cannot be done overnight. All phases of the situation must be explored. The profession and the public should not expect results at too early a date. Your ideas will be appreciated. You will be kept informed on progress.

2. Coordination of present plans and stimulation for new plans.

The Advisory Committee will consider ways and means to obtain the full cooperation of existing plans and how best the Council and the Bureau of Medical Economics can continue and amplify present studies to aid societies in setting up prepayment plans or insurance programs.

3. Establishment in each state of a Bureau of Information to assist the returning medical officer.

Activities of these state bureaus are to be integrated with those of the A.M.A. Bureau of Information that has been functioning for more than a year.

4. Rural Health to receive special attention.

The report of the A.M.A. Committee on Rural Health Service recommended establishment of committees in each state to contact the Farm Bureau and other farm groups. In most states this problem of rural medical care is one of major consideration.

The Committee has met and will continue to meet with the various farm groups to work out ways and means of attacking this problem. Each state society will be kept informed in regard to recommendations resulting from these meetings.

5. Fourteen Point Program.

The Fourteen Point Program outlined and amplified in the December 1 issue of The Journal of the American Medical Association in the definitive article by Dr. Louis H. Bauer was presented and accepted by the House of Delegates. To carry out this program is a task in itself that will be a continuing challenge to the ingenuity of the medical profession throughout the country.

This represents American medicine's answer to socialization and the Council hopes that every effort possible will be made by the state medical societies to make the Fourteen Point Program a living actuality.

NEW TECHNIC PROVES EFFECTIVE

The technic developed by the public relations conferences held under the direction of the Council on Medical Service and Public Relations sensing medical thought on the local level and translating it into recommendations for action has proved its worth. This method of procedure helped the House of Delegates to clarify its thought on many controversial issues, and placed the House of Delegates in a position to adopt a progressive and far-reaching program. As a whole the comments concerning this procedure were favorable and suggestions already are underway to perfect this method in approaching future problems.

REAL SERVICE

The Ohio State Medical Association has compiled a booklet on post-graduate medical education for returning veterans. The booklet contains lists of approved residencies and fellowships, of clinical review and refresher courses, data on the G. I. Bill of Rights, licensure, etc.

An increasing number of county medical societies are utilizing space in local newspapers to announce the return of members who served in the armed forces. Listing the name, address, telephone number, and on some occasions the specialty.

OF SPECIAL IMPORTANCE!

Compulsory Health Insurance Legislation

(Wagner-Murray (S.1606), Dingell (H.R.4730) Bills—the result of President Truman's recent health message).

Hearings on this legislation may be expected. Every physician should be informed fully in regard to these measures. To this end several state societies have supplied key men in each of their county medical societies with the following material:

1. Copy of the bills. (These may be obtained from your congressmen.)

2. Copy of editorial in A. M. A. Journal of December 1. (Reprints may be obtained from A. M. A.)

3. Analysis of National Health Act of 1945 prepared by Bureau of Legal Medicine and Legislation. (Reprints available.)

4. Five point statement (enclosed) of Board of Trustees and adopted by House of Delegates in session December 3 to 5, 1945 in regard to Federal system of compulsory sickness insurance.

The Council suggests that each physician keep posted by reading A. M. A. and his State Medical Journals.

(From Report of Reference Committee on Legislation and Public Relations of House of Delegates):

"Finally, the fourth proposal of President Truman and the main features of the Wagner-Murray-Dingell bill is the creation of a federal system of compulsory sickness insurance. In commenting on this proposal, your reference committee recommends that the House of Delegates endorse the following statement from the editorial published in The Journal of the American Medical Association, Dec. 1, 1945: 'No one will ever convince the physicians of the United States that the Wagner-Murray-Dingell bill is not socialized medicine. By this measure the medical profession and the sick whom they treat will be directly under political control. By this measure the great system of private hospitals and community hospitals that have grown up in our country will depend for their continued operation on funds paid to them by a federal government agency. By this measure the philanthropic efforts for the care of the sick, which have been the pride of our nation, will be forever deterred. Through this measure competent young men who would enter the medical profession will be forced to seek other fields of action still remaining under our democracy which still permit the exercise of individual initiative and freedom of thought and action. By this measure doctors in America would become clock watchers and slaves of a system. Now, if ever, those who believe in the American democracy must make their belief known to their representatives, so that the attempt to enslave medicine as first among the professions, industries and trades to be socialized will meet the ignominious defeat it deserves.'

"Your reference committee recommends that the House of Delegates express its official disapproval of the fourth proposal of President Truman.

"1. The Wagner-Murray-Dingell bill is founded on the false assumption that solution of the medical care problem for the American people is the panacea for all of the troubles of the needy.

"2. This is the first step in a plan for general socialization not only of the medical profession but of all professions, industry, business and labor.

"3. Positive proof exists from experience in other countries that inferior medical service results from compulsory health insurance.

"4. A program such as outlined is enormously expensive. It will result in greatly increased taxes for the entire population of the United States.

"5. Voluntary prepayment medical plans now in operation in many parts of the United States and which are rapidly increasing in number will accomplish all the objects of this bill with far less expense to the people and under these plans the public will receive the highest type of medical care."

PARRAN'S LETTER WOULD 'MUZZLE' HEALTH STAFF

A letter sent by Surgeon General Thomas Parran of the U. S. Public Health Service to all officers of that governmental agency on the National Health Program has "created amazement and consternation" within the medical profession, according to an editorial in the January 12 issue of The Journal of the American Medical Association.

The mimeographed letter sent out by Surgeon General Parran, under date of December 10, follows:

Enclosed is a copy of House Document No. 380, which is the full text of President Truman's message to the Congress on a national health program, a subject of the highest importance to every citizen. The message contains a comprehensive analysis of the health problems of the country and recommendations as to the pattern of legislation to deal with them.

It is a source of particular satisfaction to all of us who labor for the public health advancement that this should be the special subject of a Presidential message. For the first time we have the major elements of a national health policy officially stated in comprehensive terms. This has been a goal of all public health workers for many years, and the eununciation of such a policy by the Chief Executive gives the Public Health Service definite objectives for its future work.

On the same day as the message was delivered Senator Wagner introduced (for himself and Mr. Murray) S. 1606, and Representative Dingell introduced H.R. 4730, designed to implement the proposals of the President. In addition, several bills are pending in the Congress dealing with special phases of the President's legislative program. These include the hospital construction bills, the national mental health bills and the stream pollution bills, each of which would impose substantial additional responsibilities on the Public Health Service.

The appropriate executive agencies of the government have been specifically instructed by the President to assist in carrying out this legislative program as presented to the Congress on September 6. The President wrote to the administrator of the Federal Security Agency on October 4 requesting him "to take primary responsibility for legislative measures necessary to carry out the part of my message (Sept. 6, 1945) outlined in section 21 concerning a national health program to provide adequate medical care for all Americans and to protect them from financial loss and hardship resulting from illness and accident."

Every officer of the Public Health Service will wish to familiarize himself with the President's message and will be guided by its provisions when making any public statement likely to be interpreted as representing the official views of the Public Health Service.

THOMAS PARRAN, Surgeon General.

Commenting editorially on the letter, The Journal said:

"If the fourth and fifth paragraphs of this letter say what they seem to say, the President of the United States has instructed the executive agencies of the government to get behind his legislative program for the extension of health. The Surgeon General of the U. S. Public Health Service goes into action, ties the Wagner-Murray-Dingell bill right into the program and at least hints to his officers that they had better be careful about making any public statements with regard to the message.

"Many of those addressed in this instance are physicians in the private practice of medicine in the United States. They volunteered their services in the formation of hospital units to aid the people of this country in an emergency; they continued their membership in the Reserve of the Public Health Service after the war itself ended bcause it seemed to be desirable to have an emergency service available. If, however, men are to be directed in their thinking or muzzled in their speaking incident to their desire to be of service to the health of the nation, their rights as American citizens will have to prevail. Reserve officers will have to consider seriously whether or not they wish to maintain any official connection with such a federal agency. Incidentally, it might have been better if General Parran had, in these final two paragraphs, said in shorter and clearer sentences exactly what he meant to convey."

NEBRASKA STATE DEPARTMENT OF HEALTH

DR. SELBY RESIGNS

The State Department of Health announces with regret the resignation of Dr. C. A. Selby who has been State Director since November, 1942.

Dr. Selby came to the Department from private practice in North Platte. He is a former president of the Nebraska State Medical Association, and served for twenty years as District Surgeon for the Union Pacific at North Platte. He served with the Rainbow Division and in the Army of Occupation in World War I.

During his State leadership, public health in Nebraska has made significant progress. It was such leadership as this that induced the Legislature in 1943 to pass six important bills relating to public health, among them 40, 41 and 295, which provided for prenatal and premarital blood tests and for permissive legislation to establish local health departments. In 1945 L.B. 144 relating to county hospitals and L.B. 371 which has to do with legitimatizing illegitimate births, were adopted. The State biennial appropriation for public health when Dr. Selby came into office was $87,000; today it is approximately $250,000.

The physical plant of the State Department of Health has been greatly expanded and the personnel enlarged to meet the public health needs in Nebraska.

Dr. Selby is responsible for much of the basic work which brought into being the Lincoln and Omaha permanent local Health Departments.

Community groups over the State have become definitely interested in the public health needs in their own communities and have organized to make improvements in health situations.

In the Governor's letter of acceptance, he told Dr. Selby: "Your fine and loyal service covering more than three years is surely appreciated. Under your guidance, great progress has been made by the Department of Health and you have a right to feel proud of your record."

Dr. Selby plans to go into Federal Health activities.

Dr. W. S. Petty, Director of the Divisions of Local Health Services and Communicable Disease Control was named by Governor Griswold as Director of Health, to fill the vacancy created by the resignation of Dr. Selby.

Dr. Petty has had a long service in the field of Public Health. His official work between 1925 and 1941 was with the State Health Departments in Missouri and Iowa.

In 1941 he completed his Master's work in Public Health at the University of Minnesota, School of Public Health. He became a member of the staff of the Nebraska State Department of Health in January, 1942.

Dr. Petty knows well Nebraska's public health problems and we predict that definite progress will continue under his leadership.

Late in February, R. H. Loder, M.D., Director of the Division of Maternal and Child Health, will be on leave for study at the University of Michigan, Ann Arbor. Dr. Loder is completing work for his M.P.H. degree. In his absence, D. M. Alderson, M.D., Assistant Director, will be in charge of Maternal and Child Health activities.

Returning personnel include Sayre Proudfit to the State Laboratory. He has served for two years in Medical Laboratories in various theaters of war; and O. D. DeFrain to the Division of Sanitation. Mr. DeFrain was in Malaria Control work during the war years.

New personnel includes Charles W. Fahrenbach who has been appointed Milk and Food Sanitarian. Mr. Fahrenbach came to Nebraska from the County-City Health Department in Yakima, Washington.

A visitor to the State Department on January 18 was Dr. Ruth Grout, Associate Professor, Public Health and Education, The Medical School, University of Minnesota. Health Education activities in Nebraska were discussed. Members of the staff had an opportunity to meet Dr. Grout informally and discuss 1946 problems in public health education.

The State Department of Health soon will receive approximately 3,100 packages of dried blood plasma from the American Red Cross for distribution to hospitals in Nebraska.

The plasma, now considered surplus with the end of the war, will be stored in the State Laboratory until it can be delivered to hospitals on the basis of the number of physicians and beds at the institutions.

The Department will keep a reserve supply, probably 10 per cent, on hand in order to meet any emergencies.

The plasma is furnished by the Red Cross without charge, and the hospitals may not collect fees for the material. Charges may be made, however, for administering the plasma.

CENTRAL STATE LABORATORY TESTS IN 1945

Total Premarital	14,961
Total Prenatal	20,343
Total Bacteriological examinations on water samples from municipal supplies	7,706
Total Bacteriological examinations on water from non-municipal supplies	2,480
Total Bacteriological water examination	9,586
Total tests run	162,077

NEBRASKA'S VITAL RECORDS

1904-1945

In the Division of Vital Statistics these records are on file at the close of 1945:

Births	1,218,654
Deaths	500,342
Divorces	90,512
Marriages	432,546
Stillborns	14,844
Total number of certificates filed	2,256,898

BOOK RECEIVED

Men Without Guns by DeWitt Mackenzie, with an introduction by Major General Norman T. Kirk, Surgeon General of the United States Army. 47 pages of text with illustrations, and 100 pages of copies of paintings of Men Without Guns, 137 plates in all, with 118 plates in color. The Blakiston Company, Philadelphia, Pa. Price $5.00.

PUBLICITY FOR SCIENTIFIC MEDICINE

"Publicity for new discoveries in the field of medicine is a two edged sword," the Journal of the American Medical Association says editorially. "It may extend the hopes of the public far beyond what is warranted. It may cause pressure on physicians to try methods of treatment that may not be desirable. On the other hand, the public is certainly entitled to know about new discoveries in medicine and their significance in relation to the maintenance of health and the prevention of disease. Recently the periodical Nordisk Medicin has developed a special technic in relation to the scientific medical articles that it publishes with a view to solving this problem. When an article is undesirable or unready for public exploitation, the editors place at the top of the article as published in the medical journal the phrase 'Omtale i dagspressen forbydes.' This means that reproduction in the daily press is forbidden. Since the material in the publication is covered by controls, as our periodicals are covered by copyright law, this would seem to serve the purpose of delaying publicity for scientific contributions until the medical profession itself considers such publicity warranted."

ROSTER OF NEBRASKA PHYSICIANS IN MILITARY SERVICE

As of January 15, 1946

* Killed in action ** Released from Service † Died

ADAMS COUNTY
Anderson, Martin F., Hastings
**Coen, Robert A., Ingleside
Foote, Donovan B., Hastings
Harrington, A. E., Hastings
**Kingsley, D. W., Hastings
Kostal, Otto, Hastings
**Nielsen, Juul, Ingleside
Shaw, W. L., Hastings
Uridil, C. F., Hastings
Weber, C. R., Hastings

BOONE COUNTY
Higgins, J. P., Albion

BOX BUTTE COUNTY
**Kennedy, J. F., Alliance
**Kuncl, Joseph, Alliance
Morgan, R. J., Alliance
Sorensen, C. N., Alliance

BROWN COUNTY
*Prescott, Kenneth E., Long Pine

BUFFALO COUNTY
Albertson, L. C., Kearney
Dickinson, L. E., Ravenna
Hayes, C. B., Kearney
Wilcox, M. B., Kearney

BURT COUNTY
Lukens, Isaiah, Tekamah

BUTLER COUNTY
Burdick, D. E., David City

CASS COUNTY
Anderson, R. R., Nehawka
**Eaton, Wilbur S., Plattsmouth
Kunkel, L. N., Weeping Water
Formanak, C. J., Murdock
Worthman, H. W., Louisville

CHEYENNE COUNTY
Bitner, C. U., Sidney
Bush, Stuart K.

CLAY COUNTY
Richter, Donald A., Sutton

COLFAX COUNTY
**Myers, H. D., Schuyler
Tepley, Gene L., Howells

CUMING COUNTY
Krause, Richard A., West Point
Robbins, H. M., West Point
Thompson, L. L., West Point

CUSTER COUNTY
Koefoot, Ted, Jr., Broken Bow
Leonard, Patrick, Broken Bow

DAWES COUNTY
Anderson, A. W., Lexington
DeFlon, Eric G., Chadron
McElligott, E. W., Chadron
**Sinclair, R. D., Chadron

DAWSON COUNTY
**Norall, V. D., Lexington
**Olsson, Paul Bryant, Lexington

DEUEL COUNTY
**Smith, N. R., Big Springs

DIXON COUNTY
Coe, C. Max, Wakefield

DODGE COUNTY
Byers, R. C., Jr., Fremont
**Merrick, A. J., Fremont
**Morrow, H. H., Fremont
Sobota, J. E., North Bend

DOUGLAS COUNTY
**Holden, W. J., Elkhorn

OMAHA
Alliband, Geo. T.
Arnsten, L. L.
Avery, Hiram Henry
Bantin, C. F.
Barber, Herbert Gordon
**Barr, Joseph Harold
**Best, R. Russell
Bowers, Warren F.
**Brazer, John C.
**Burns, B. C.
Carp, Oscar, Int.
**Cash, Paul T.
Cochran, Robt. M., Int.
**Cohen, Louis Allen
**Comine, Jos. J.
Crawford, Wm. Henry
Crynes, S. F.
Curti, Ralph Elmer
**Day, Robt. Jerome, Int.
Deakin, Thos. Wm.
**De Long, Henry Livesey
Dolce, Daniel D., Int.
**Donelan, James P.
Dornberger, G. R.
**Dowell, D. A.
Downing, John Edwin
**Dworak, Henry L.
Everitt, Neill J.
Faier, Samuel Z.
**Fellman, Abe C.
Finegan, Jas. F.
Fogarty, Chas. James
Freymann, J. J.
Gatewood, John W.
**Green, M. C.
**Greenberg, Maynard
**Greene, Arthur M.
Gross, Jos. J.
Green, Chas. Joseph
**Haffke, Oscar William
Hansen, Clifford H.
Harms, H. H., Int.
**Hardy, C. C.
Hartford, Thos. J.
Hayes, Jack Murray
Hennegan, Geo. F.
Henrich, Leo. Chas.
**Heywood, Leo. T.
**Hirschman, J. H., Int.
Hoekstra, Clarence, S., Int.
**Holmes, W. E.
**Horwich, Joe Maurice
Hubenka, A. H.
Hungerford, Wm. E.
**Iwersen, Frank J.
Jensen, Werner P.
**Jonas, A. F.
**Kelley, J. Whitney
**Kelley, Wm. E.
Kemp, Wm. T.
Kiltz, Richard Clyde
Klabenes, Frank J.
Knauff, Harry A., Int.
**Korth, Zeno N.
Koutsky, Jas. John, Int.
Krieg, Jacob J., Int.
Le Mar, J. D.
**Levine, Victor E.
Lewis, Raymond G.
Lierman, C. E., Int.
Longo, Jos. A.
**Mackenbrock, F. C.
Mangiameli, Carl L.
**Mangimelli, Saml. T.
Martin, Paul J.
**McLaughlin, Chas. W.
**Millett, Clinton C.
**Moran, C. S.
Mooater, Chas. J., Int.
**Morrow, Paul
**Muldoon, John H.
Murphy, Albert V.
Nelson, Floyd
**Nemec, Edward Chas.
Nurenberger, Robt. E.
**O'Brien, Donald J.
**Owen, D. R.
Patton, John Erwin
Peterson, Wendell Case
Plechas, Nicholas Peter
**Popelar, M. V.
Penry, Richard E., Int.
**Rasgorshek, R. H.
**Read, Paul
**Redgwick, J. P.
Reiner, Walter M., Int.
**Rose, Forrest I.
Schaefers, Richard Henry
Senter, Vance E., Int.
Shamberg, Alfred H., Int.
**Staubitz, H. F.
**Steinberg, M. M.
*Stokes, Harry B.
Strand, Clarence Johnson
**Tamisiea, John A.
Taylor, Willis
Thompson, C. Edward
**Tompkins, Chas.
**Townley, Robt. Hadley
Vroman, Donald Clay
Waters, C. H., Jr.
**Weinberg, J. A.
Wendland, John P.
**Wilson, Donald J.
**Wright, W. D.
**Wyrens, Raymond J.
**Young, Geo. Alex., Jr.

FILLMORE COUNTY
**Huber, Paul J., Exeter
Tucker, John G., Milligan

FRANKLIN COUNTY
Rosenberg, Davis Sam, Franklin
Williams, Martin P., Franklin

FURNAS COUNTY
James, Louis D., Oxford

GAGE COUNTY
Brown, R., Beatrice
**Bryant, A. R.
**Elias, Houghton F., Beatrice
McCleary, D. P., Beatrice
**Rathburn, S. M., Beatrice
Rush, Weaver A., Beatrice
Smartwood, F. M., Adams
Waddell, Wm., Wayne

GARFIELD COUNTY
**Cram, Roy S., Burwell

GREELEY COUNTY
**Kafka, A. J., Scotia

HALL COUNTY
Campbell, John F., Grand Island
Johnson, E. George, Grand Island
**McDermott, K. F., Grand Island
McGrath, W. M., Grand Island
Rich, Edward W. L., Grand Island
**Royer, Howard, Grand Island
Ryder, Frank D., Grand Island
**Watson, Donald P., Grand Island

HITCHCOCK COUNTY
Brown, Kenneth W., Stratton

HOOKER COUNTY
Buhl, Clayton Edwin, Mullen

HOWARD COUNTY
Hynes, W. P., Washington, D. C.
**Wengert, D. B., St. Paul

JEFFERSON COUNTY
Ainlay, Geo. W., Fairbury
Lynch, Geo. M., Fairbury
Luce, Roscoe P., Fairbury
Shupe, Lester L., Fairbury

JOHNSON COUNTY
*Prachar, Gordon, Tecumseh

KEARNEY COUNTY
Sutton, Bruce, Minden

KIMBALL COUNTY
**Lipp, Frank E., Kimball

KEITH COUNTY
Vandiver, H. A., Ogallala

KNOX COUNTY
Carrig, M. H., Bloomfield
Green, Carl Raymond, Niobrara

LANCASTER COUNTY

LINCOLN
**Arnold, C. H.
Anderson, Jas. B.
Bartholomew, P. H.
Baskin, Abraham H.
Calhoun, O. V.
Campbell, W. Allen
Colbert, Morgan R.
Crook, Glen Delroy
Elliott, Clarence
Everett, H. H., Jr.
**Fechner, A. H.
**Ferciot, C. F.
Frazier, M. D.
**Garlinghouse, Richard
**Gibson, L. V.
**Gray, Richard
Greer, Rex E.
Haentzschel, L. E.
Haley, Robert R.
Harvey, Glen W.
Heidrich, John Paul
**Hobbs, E. T.
Johnson, R. W.
Lotman, Harry Alfred
**Loudon, J. R.
Marx, Paul Donald
Merideth, John A.
Miller, N. R.
**Miller, S. D.
**Morton, H. B.
**Munger, Horace
Neely, J. Marshall
Palmer, R. B.
Peterson, J. C.
Podlesak, J. J.
Reed, E. B.

Rembolt, R. R.
Rider, Larry D.
Reynolds, Verne J.
Royal, Paul
**Sharrar, Lynn E.
**Snipes, J. J.
Stein, Robt. J.
**Still, Richard M.
**Taborsky, A. F.
**Teal, Frederick F.
**Teal, Philip
**Underwood, G. R.
**Whitham, R. H.
William, Russell I.
Wood, M. A.
Zinneman, H. H.

LINCOLN COUNTY
Anderson, Gustave Theodore, N. Platte
Anderson, Thorwald R., N. Platte
Clarke, H. L., Jr., North Platte
Dent, T. E., North Platte
Hirschfeld, Beryl, North Platte
**Hudgel, L. E., North Platte
Long, Fred P., North Platte
**Millhouse, John H., North Platte
†Redfield, J. J., North Platte
**Schneider, Albert L., Brady
Shaughnessy, E. P., North Platte
**Waltemath, Glenn, North Platte

MADISON COUNTY
**Brauer, S. H., Norfolk
Ingham, Chas. G., Norfolk
Salter, Geo. B., Norfolk
**Sandritter, Gilbert Lee, Norfolk
Schwedhelm, A. J., Norfolk

MORRILL COUNTY
Pugsley, Geo. W., Jr., Bayard

NEMAHA COUNTY
**Tushla, F. M., Auburn

OTOE COUNTY
Campbell, G. C., Nebraska City
**Ewing, Ben. E., Nebraska City
**Kenner, W. C., Nebraska City
Thorough, Paul H., Syracuse

PAWNEE COUNTY
Harmon, Leo D., Pawnee City
Lowe, DeWitt S., Pawnee City

PHELPS COUNTY
Brewster, Donald E., Holdrege
Foley, Thos. H., Holdrege
**Matson, Roy M., Holdrege
**Reeder, R. C., Holdrege
Shreck, H. W., Holdrege

PLATTE COUNTY
**Anderson, Ronald C., Columbus
Koebbe, E. E., Columbus
O'Donnell, Reynolds J., Columbus

POLK COUNTY
**Brillhart, Everett G., Shelby

RED WILLOW COUNTY
Brimmer, K. W., Washington, D.C.
**Morgan, Donald H., McCook

RICHARDSON COUNTY
**Bozarth, Elton P., Humboldt
Ketter, W. R., Falls City
Lennemann, Ernest, Falls City
Youngman, R. A., Falls City

SALINE COUNTY
**Mack, M. A., Crete
Travnicek, F. G., Wilber

SAUNDERS COUNTY
**Hervert, Wm. Jas., Valparaiso
**Rogers, E. A., Wahoo

SCOTTS BLUFF COUNTY
**Alderson, Donald M., Gering
Black, Eugene W., Gering
Campbell, Louis S., Scottsbluff
**Gentry, Willard M., Gering
Hanna, Joe T., Scottsbluff
**Ohme, K. W., Mitchell
Rosenau, John A., Scottsbluff
**Zierott, L. L., Scottsbluff

SEWARD COUNTY
Clarke, Harry D., Seward

SHERIDAN COUNTY
Sullivan, Paul J., Rushville
**Wolf, Wm. Kenneth, Hay Springs

THURSTON COUNTY
**Balg, Joseph, Winnebago
Bradley, J. D., Pender

WEBSTER COUNTY
Obert, Francis C., Red Cloud

VALLEY COUNTY
**Kruml, Jos. Geo., Ord
Round, John N., Ord

YORK COUNTY
Kilgore, Robert N., York
Kilgore, W. S., York
Karrer, R. E., York

SERVICE NOTES

RETIRED FROM SERVICE:

Dr. D. P. McCleary has returned to Beatrice.

Returning to St. Paul is Dr. B. B. Wengert.

Dr. James Kennedy has returned to Alliance.

Dr. Robert C. Reeder is back to his office in Holdrege.

On terminal leave is Capt. Walter E. Ziegenbein of Ashland.

Dr. Sanford Rathbun is back in civilian practice at Beatrice.

Dr. Glenn F. Waltermath of North Platte has resumed his practice

Back to his duties in the Norfolk State Hospital is Dr. G. L. Sandritter.

Dr. F. R. Lauvetz of Wahoo has taken a residency at St. Luke's Hospital in Denver.

Dr. Bryant Olsson has remodeled his office in Lexington and is back in practice.

Dr. Harry Jakeman, formerly of Wahoo, has become associated with Dr. C. G. Moore in Fremont.

Dr. Charles Swift, Jr., Crofton, after serving five years in the Army Medical Corps, is locating in Bloomfield.

On terminal leave also is Lt. Col. Joseph G. Kruml. Before entering the army five years ago Dr. Kruml practiced at Ord.

After serving 31 months in the Army Medical Corps, Dr. C. R. Brott, formerly of Jensen, has located in Beatrice.

Discharged from the service is Dr. Richard D. Sinclair of Chadron. Dr. Sinclair is associated with Dr. Courshon.

Dr. Kenneth F. McDermott, retired as a lieutenant commander of the Naval Reserve, is returning to his practice in Grand Island.

Dr. Howard Royer, after serving as a lieutenant commander in the U. S. Naval Reserve, has resumed his practice in Grand Island.

Dr. Leo J. Thomas of Sidney is about to return to his practice. Dr. Thomas served as field director with the Red Cross in the Pacific area.

Dr. A. R. Bryant, Beatrice; Dr. Raymond C. McIllece, Beatrice. Dr. McIllece has become associated with Dr. William Ramacciotti of Nebraska City.

Dr. E. W. Kingsley, Hastings, retired as a colonel. Dr. Kingsley has reopened his office after four and one-half years absence on duty in the Army Medical Corps.

Dr. Sanford O. Staley, after 3½ years' service in theArmy Medical Corps, has located in Kearney in association with Drs. Royal Jester and Harold Smith.

Dr. A. J. Merrick is taking a three-month refresher course in internal medicine at the University of Minnesota. He plans to resume his practice at Fremont in April.

Dr. Harold Barr, Pawnee City, retired as lieutenant commander of the Navy Medical Reserve. Dr. Barr will soon return to his former association with Drs. Judd and Cassidy of Omaha.

Also on terminal leave now is Dr. George B. Salter of Norfolk. Dr. Salter was a lieutenant colonel in the Army Medical Corps and served with the 96th Division on Leyte and on Okinawa.

Dr. E. G. Brillhart, formerly of Shelby, following release from the Army Medical Corps as a major, has become associated with Dr. James M. Meyer of Columbus. Dr. Brillhart served in France with the 35th Division.

NEWS OF LINCOLN VETERANS:

Retired as a captain, Dr. L. V. Gibson, has reestablished his former connections in Lincoln.

Dr. Charles H. Arnold, after serving as lieutenant colonel in the Army Medical Corps, has returned to his Lincoln practice.

Rejoining his associate, Dr. J. E. M. Thomson, is

Dr. Fred C. Ferciot. Dr. Ferciot was retired as commander in the U.S.N.R.

After an absence of three years, Dr. H. B. Morton, retired as commander in the Naval Medical Reserve, has returned to Lincoln .

Dr. A. H. Fechner has resumed his duties as superintendent of the Lincoln State Hospital following separation from the U. S. Naval Reserve Medical Corps.

Dr. D. M. Alderson discharged as a lieutenant colonel in the Army Medical Corps has resumed his connections with the State Health Department. He will assist Dr. Loder in the Division of Maternal and Child Health.

On terminal leave is Dr. Lynn E. Sharrar. He served as a major in the Army Medical Corps and was chief of surgery at Ft. Leavenworth, Camp Crowder, Winter General Hospital, Ft. Des Moines, and Ft. Leonard Wood. He has resumed his practice in Lincoln.

OMAHA NEWS:

Dr. Walter J. Holden has returned to his office in Elkhorn.

In the Aquila Court are Robert Rasgorshek, and M. C. Green.

Dr. D. J. O'Brien has located in the First National Bank building.

In the City National Bank building are Abe C. Fellman, F. C. Mackenbrock, Edward C. Nemec,.

Back to his former office is Dr. Paul S. Read. He was retired from the Army Medical Corps as a lieutenant colonel.

Dr. Brazer has returned to his practice in Benson, and Dr. Victor Levine to his old post at Creighton University School of Medicine.

Retired as lieutenant colonel is Dr. George A. Young, Jr. Dr. Young has resumed his practice in the Medical Arts Building.

Renewing acquaintances at their old locations in the Medical Arts Building where their offices are located are Dr. Raymond J. Wyrens, Arthur M. Greene, Zeno Korth, Donald Wilson, C. C. Hardy, R. Russell Best, J. J. Comine, Maynard Greenberg, Frank Iwersen, Chas. McLaughlin, J. P. Redgwick, Willis D. Wright, Donald Owen, D. A. Dowell, Paul Cash.

DEATHS

Oswald H. Magaret, Papillion. Born in Illinois in 1877. Graduated from St. Louis College of Physicians and Surgeons in 1899, and the Omaha Medical College in 1900. Located in Papillion in 1903 and remained in the community until the time of his death December 28, 1945. Dr. Magaret had been in poor health since 1934 when he suffered from a coronary attack. He returned to active practice following declaration of war in order to supply the community with what medical care his condition would allow. Dr. Magaret was a veteran of the first world war.

John Henry Morrow, Merna. Born in Illinois in 1872. Graduated from Lincoln Medical College in 1902. He came to Merna immediately after graduation and remained in the community until the time of his death, December 10, 1945.

Charles William Gooden, Edison. Born in Indiana in 1870. Graduated from Medical College of Indiana in 1896. Practiced in Edison from 1897 to the time of his death on December 22, 1945. He was burned to death in a fire of unknown origin in the house in which the doctor lived alone. Dr. Gooden is survived by two sons.

Jacob Edward Meisenbach, Staplehurst. Born in Illinois in 1876. Graduated from Omaha Medical College in 1904. Located in Staplehurst immediately thereafter and remained in practice until the time of his death December 9, 1945. Dr. Meisenbach was prominent throughout the Staplehurst territory. He was a member of the local and state medical societies and the American Medical Association. He served as president of the Seward County Medical Society and represented the county as delegate in the Nebraska State Medical Association. He was also a member of the American Congress of Physical Therapy.

Dr. David C. Hilton, Lincoln. Born near Dorchester in 1877. Graduated from Rush Medical College in 1903. Located in Lincoln the same year, and remained in the community until his death on December 12, 1945. Dr. Hilton was a prominent member of the medical profession in Nebraska, having served in many capacities and on many committees in behalf of organized medicine. He was a member of the Lancaster County Medical Society, a Fellow of the American Medical Association, and a Fellow of the American College of Surgeons. For many years he was a member of the American Association for the Advancement of Science. At one time he was delegate from the United States to the International Congress of Military Medicine and Pharmacy, which met in London. Dr. Hilton was one of the organizers of the 110th Medical Regiment of the Nebraska National Guard and had served as lieutenant colonel, colonel and brigadier general until he retired in 1940. Surviving are his wife; two daughters ,and a son, Capt. Hiram David Hilton, now serving in the Pacific. The following editorial remarks are taken from the Lincoln Star:

DR. DAVID HILTON

There was a scholarly quality to Dr. David C. Hilton that added to the variety of his interests. He read extensively not only in his profession as a surgeon but in many other fields. He was a devoted worker in his church and he took a deep interest in Masonry. Only a week before his death he had been chosen grand high priest of the Royal Arch Masons of Nebraska. Dr. Hilton was a shy, reticent man, but once the barriers of his shyness were broken down he was a most delightful companion. In his chosen profession, his experience covered a wide field including overseas duty. He served as a delegate in the International Congress for Military Medicine in 1927 at Warsaw and at London in 1929. He was the author of a great many papers and pamphlets on subjects relating to military medicine. His death from a heart attack came as a shock.

Benjamin F. Lorance, Auburn. Born in Missouri in 1858. Graduated from the Medical School University of Iowa in 1887. He located in Brock where he remained in practice for 11 years. Following postgraduate work in Chicago, he moved to Auburn in 1905 where he remained until the time of his death December 4, 1945. Dr. Lorance was known all over the southeastern territory as a conscientious, able physician. He was honored by his county medical society on many occasions and because of his literary ability he held the office of secretary for many years. He was not only a good doctor but a student in public affairs. His two books, "Medi-cult, The A. B. C. of the Medical Profession," and the "Religious Instruction and the American Public School" are full of good philosophy and common sense. Dr. Lorance did not limit his activities to medicine, having contributed much to the general welfare of the community. Surviving are two sisters.

Roy E. Peters, Wymore. Born in Illinois in 1885. Graduated from Chicago School of Medicine in 1915. After doing postgraduate work he located in Wymore, where he remained until the time of his death on December 4, 1945. He is survived by his son living in Thedford.

Dixie Secord, Sumner. Born in 1882. Graduated from University of Western Ontario Medical School in 1906. Practiced for several years in Omaha, and in 1937 moved to Sumner. Died December 11, 1945. Survivors are his wife, two daughters, and a son.

HUMAN INTEREST TALES

Communications bearing human appeal are solicited. They should be addressed to The Editor, Nebraska State Medical Journal, 220 Medical Arts Bldg., Omaha.

Dr. L. A. Swanson of Hastings addressed the local Kiwanis Club in December.

Dr. Herbert H. Davis addressed the Nutrition Council of Omaha in December.

Dr. J. C. Nielsen of Ingleside addressed the Hastings Kiwanis Club on Mental Hygiene.

Dr. C. G. Moore of Fremont was a patient in the Dodge County Community Hospital recently.

Dr. Joel Anderson of North Platte was elected county physician at the board meeting of Lincoln county.

Dr. A. E. Bennett, Omaha, spoke before the University of Nebraska Chapter Sigma Xi in Lincoln last December.

Dr. John C. Thompson of Lincoln visited his son at Hamilton College, New York State, in December. He also attended clinics in Philadelphia.

Among Nebraskans attending the sessions of the International College of Surgeons in Washington last December were Dr. Ted E. Riddell of Scottsbluff and Dr. T. L. Weekes of Nebraska City.

Dr. S. B. Koory of Schuyler, after twenty-nine years of practice, has retired. Dr. Koory has had an active civic and professional career, and has contributed much to the welfare of the community. According to the local press he has delivered more than 3,000 babies.

In the January issue of the Journal we reported that Dr. W. J. McMartin was elected secretary-treasurer of the American Urological Association. Dr. McMartin calls our attention to the fact the organization of which he was elected secretary is the South Central Section of the A.U.A.

Retiring from active practice is Dr. E. E. Griggs who has practiced medicine in Scottsbluff for a quarter of a century. Dr. Griggs' office will be occupied by Dr. L. E. Hudgell, a graduate of the University of Iowa College of Medicine in 1936, and recently discharged from the Army Medical Corps.

Dr. Harry J. Newell of Alexandria has withdrawn from active practice temporarily because of poor health. It is interesting to record here that two full columns of space were quoted by the local newspaper in praise of Dr. Newell's service. Space does not allow us to quote all the good things that were said about Dr. Newell, but a dedication by William E. Kirk is hereby reproduced. It is a dedication to the country doctor which Dr. Newell so proudly represents.

THE COUNTRY DOCTOR

Day in, day out, night out, night in,
Where snow is thick and fees are thin
He hustles with his cheery grin,
To fight with ills.

The drives are long, the nights are cold,
He suffers hardships left untold,
To call upon some mother old
Across the hills.

Little he says about his pay,
Often he gives his skill away,
And tho' he's getting bent and gray
He has no wealth.

His life has been an endless trial,
His motto has been self-denial;
Freely he gives from every vial
For some one's health.

The country doctor rides alone,
Thru rugged roads o'er stick and stone,
To heal men not to make them moan;
God bless his heart!

—William E. Kirk.

TUBERCULOSIS AND TOBACCO

"Statistical studies have not shown tuberculosis infection or disease to be more frequent in users of tobacco than in those who abstain," says The Journal of the American Medical Association in a recent issue. The Journal adds that among tuberculous patients it has been found that those who smoke are apt to have a higher incidence of throat involvement and that such complications appear to be adversely affected by persistence in smoking. Most physiologists are convinced that, for the tuberculous patient, smoking can do no good and may do harm.

"Some Griefs Are Medicinable"
. . . Cymbeline act III, scene II

Many patients stricken with grief over misfortune or bereavement develop abnormal reactive depressions . . . differentiated from normal depressions of mood by their inordinate intensity and stubborn persistence.
With these patients, Benzedrine Sulfate therapy is often dramatically effective.
In many cases,

benzedrine sulfate *(racemic amphetamine sulfate, S.K.F.)*

tablets and elixir

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60 PER CENT OF MENTALLY ILL SOLDIERS RETURNED TO COMBAT

Army psychiatrists, who specialize in maintaining the mental health of millions of American boys in service, succeeded in returning 60 per cent of the troops with neuropsychiatric disorders to further combat duty, according to War Medicine, which is published by the American Medical Association. An additional 30 per cent were salvaged for noncombat duty in the European theater of war. Of the remaining 10 per cent who were evacuated to this country approximately 40 to 50 per cent were salvaged for further Army service. The remainder were discharged.

These figures, said Brig. Gen. William C. Menninger, of Washington, are "evidence of reasonably effective hospital management and treatment." General Menninger is director of the Neuropsychiatry Consultants Division, Office of the Surgeon General, Medical Corps, Army of the United States.

It is not uncommon in a large Army camp for psychiatrists to have 500 consultations a month.

"This high referral rate," wrote General Menninger, "may be related to the structure of the Army, which requires every man to be a follower and many to be leaders. When a man fails in either of these roles, he may become a 'case.' Certainly GI Joe cannot choose a different leader; usually he cannot change his job. When a leader fails in his responsibility, his methods may increase the possibility of maladjustment among his men. When a follower fails to accept his role, his behavior may increase the maladjustment of others in his unit."

General Menninger said that at the present time there are approximately 1,800 medical officers assigned to psychiatry. Of this number, approximately 700 had some type of psychiatric experience before their military service and the remainder have received their psychiatric experience or training in the Army. In addition, the Women's Army Corps recruited about 400 for Army psychiatric work.

"Even with all these additions," General Menninger wrote, "there continues a shortage of psychiatric personnel, which is equally true of several of the other specialist groups within the Medical Department." Continuing, he said:

"Special pride can be taken in the methods of treatment used in combat areas and their results. Unfortunately, before actual combat in 1942, there was no definite plan established for the treatment of neuropsychiatric casualties. It was assumed that they would be taken care of in general hospitals. Immediately after the American forces engaged in combat in the Mediterranean theater, it was found that not more than five per cent of such casualties were returned from the general hospitals to combat duty. As a consequence, improvised measures were created in the forward areas to provide early and immediate treatment."

That the general plan of treatment in each of the armies brought results is seen from the fact that 60 per cent of the soldiers with combat induced illnesses were returned to combat after treatment.

"Neuropsychiatry has made tremendous strides, not only in its wider application but in the specific technics used in the Army," said General Men-

(Continued on page xxxvi)

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60 Per Cent of Mentally Ill Soldiers Returned to Combat

(Continued from page xxviii)

ninger. "No one closely connected with it fails to recognize the many inadequacies which are still apparent. With the responsibility merely to provide treatment for combat-induced mental illnesses, the job would be big, but with ramifications into selection, motivation, prevention, screening and evacuation, as well as the problem presented by the maladjusted soldier who has never seen combat, the psychiatric job assumes colossal proportions . . .

"The war has brought to greater attention the fact that there are many persons with poor and with borderline adjustments in the cross-section of the male population of military age who are incapable of combat duty. Such men, when inducted, throw a tremendous additional burden on the Army; they are usually referred to the Medical Department, and a large proportion of them must be evacuated psychiatrically. This responsibility exacts a considerable portion of the time of many military psychiatrists."

PENCILLIN CURES EARLY SYPHILIS

Major William Leifer of the Army Medical Corps reports that penicillin, administered over an eight day period, was effective in curing early syphilis among army personnel.

His study, based on 96 patients, is reported in the December 29 issue of The Journal of the American Medical Association. Major Leifer stated that the patients received 60 injections of 20,000 units of penicillin in a salt solution at three hour intervals. The total dosage was 1,200,000 units injected into the muscles because this method delays the absorption and excretion of the penicillin better than when it is injected into the veins.

An inflammatory reaction occurred in 88 patients or 91.6 per cent during the first day of treatment. But the author pointed out that "in no case was it necessary to suspend or interrupt treatment because of reactions."

Major Leifer reported little sucess with pencillin treatment in secondary syphilis. He felt, however, that "results in secondary syphilis can be improved by increasing the size of the individual dose of penicillin, by lengthening the course of treatment or both."

The author concluded that "the effectiveness of a given treatment schedule must be judged by the incidence of relapse, which is greatest in the first six months after treatment, and by prolonged observation of patients to make certain that early satisfactory progress is maintained permanently." A relapse was observed in only eight of the 96 patients and 71 patients continued to pogress satisfactorily after 12 months of observation.

New and Nonofficial Remedies, 1945, Containing Descriptions of the Articles Which Stand Accepted by the Council on Pharmacy and Chemistry of the American Medical Association on January 1, 1945. 760 pages including bibliographical index, index to distributors, general index. Issued under the direction and supervision of the Council on Pharmacy and Chemistry of the American Medical Association, 535 North Dearborn Street, Chicago 10, Illinois.

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EDITORIAL

VOLUNTARY INSURANCE SYSTEM MUST SUCCEED

On page 110 of this issue we publish the general report of the Executive Director of the Nebraska Surgical Plan for the year 1945. By standards of Washington figures with their astronomical characteristics this report, to be sure, is not overwhelming. However, by our own standards of progress through evolution, this report reflects credit on those responsible for the concept in the administration of the Plan. The purpose of these remarks is neither to condemn Washington nor to bestow well earned honors on our own fellows. We are all aware of the hard work and many personal sacrifices in time and energy that these men have contributed toward the success of the Plan. Our primary objective is to stimulate an interest in the reader to the importance and appreciation of the necessity that the Nebraska Surgical Plan cannot and must not fail. It is our earnest belief that if our members will acquaint themselves with the functions and operations of this prepayment system of medical care neither the Government nor the social hangers-on will have a ghost of a chance to burden the American people with their proposed program of medical socialization.

The Nebraska Surgical Plan has a wonderful opportunity to serve both the people of this area and the medical profession itself. In the present form, it is true, its benefits are somewhat limited. However, even at this time the Board of Directors is thinking seriously of, and is fast preparing, additional benefits to the certificate holders, benefits which will ultimately make it possible to cover most, if not all phases of medical care through prepayment. The role of the individual physician in this scheme of things is a very important one because it is through the individual physician that the system is activated, and it is also through the cooperation of the individual doctor that it can take and hold its place as an important institution in this State. The Plan must be a success for two reasons: 1. It will give people of moderate means the opportunity to budget for health. This in itself is a potent reason; medical bills usually come when least expected and the expenditures for medical care are unpredictable. People, as a rule, know they will die and that there is no argument about the necessity for life insurance. On the other hand, although people fear illness, they do not expect to be sick, and only the provident ones make provision for such possibilities. Membership in the Nebraska Surgical Plan will help individuals and groups to budget for their medical emergencies and the sum paid in by many will be utilized to pay for the few who find themselves ill and in need of medical care.

The second reason lies in the challenge by our opponents who shout from all quarters that voluntary insurance plans are impractical. As evidence they point out that only 4% of the American people are covered by voluntary insurance payments under medical society auspices. These "philosophers," of course, unconsciously, or, we suspect purposely do not take into account the brief period over which these voluntary plans have been in operation. It is up to the medical profession, through the individual doctor, to help make the voluntary plan a success.

SECRETARIES' AND EDITORS' CONFERENCE

The conference of state secretaries and editors was held in the headquarters of the American Medical Association on February

8 and 9. The attendance was unusually good. Each year, for the past few years, sees additional numbers of physicians in attendance at these meetings. Most of them are officers of state or local medical societies, or members of key committees of these societies. Each year, too, brings new problems and new viewpoints to the Assembly. This year the medical economic phases occupied the attention of the entire Conference with the exception of Friday evening which was devoted to a discussion of editors' problems. Highlights of the Conference consisted of papers as follows:

"Current Status of Medical Legislation," J. W. Holloway, Jr., Director, Bureau of Legal Medicine and Legislation.

"Plans for Medical Care in Rural Areas," F. S. Crockett, Chairman, Committee on Rural Medical Service.

"State Plans for Aid to Returning Veterans," George F. Lull, Associate General Manager of the American Medical Association.

"Plan for Furnishing Medical Care to Veterans," Col. James C. Harding, Veterans' Administration.

"Public Relations of American Medicine," Morris Fishbein, Editor of The Journal of the American Medical Association.

"Progress Toward a National Medical Prepayment Plan," Jay Ketchum, Executive Vice President, Michigan Medical Service.

The purpose of the Conference is not to solve problems but rather to discuss the various phases of medical practice as they influence the members of organized medicine. We like these conferences because almost everyone takes advantage of the principle of free speech. The subject which received most attention this year centered around public relations and its place in organized medicine. An interesting paper on the subject was read by Dr. Morris Fishbein, and discussed by John Hunton, Executive Secretary, California Medical Association, and Edward Stegen, National Physicians' Committee for the Extension of Medical Care. There is little doubt but what organized medicine could derive much benefit from a well planned Public Relations program administered by personnel trained in this specialized field. The clinic on editorial problems was particularly interesting in that it brought home many of the intricacies which each editor in his own domain too often thinks is characteristic of his own state. Even the casual observer at these conferences cannot escape the conviction that problems in medicine are seldom if ever traceable to geographical boundaries.

CANCER—1946

In the annual report, submitted last year, the Cancer Committee requested permission from the House of Delegates and the officers to organize a Cancer Research and Educational Society within the Nebraska State Medical Association for members interested in cancer. This request was granted, and the preliminary organization meeting was held in Omaha, on September 20, in the Medical Arts auditorium. At this meeting, it was decided to hold the organization meeting on October 26, at Hotel Paxton, in Omaha, immediately following the last session of the Omaha Mid-West Clinical Society.

At this meeting, on October 26, the Constitution and By-Laws were adopted, and the following officers were elected: President, Dr. Edward W. Rowe; president-elect, Dr. H. E. Eggers; secretary, Dr. Frank H. Tanner; treasurer, Dr. Lucian Stark, and advisers, Dr. Earle G. Johnson, Dr. Thomas D. Boler, and Dr. Earl A. Connolly.

According to the Constitution and By-Laws, the standing committees — Program, Membership, Public Relations and Nominating—are to be named by the president. Special committees may be appointed by the president as he deems fit.

Since that time, Dr. Rowe and his fellow officers made considerable progress in the final organization work. Committee members have been named, and their meeting was held during the February, 1946, meeting of the Councilors in Lincoln.

With the organization of the Cancer Research and Educational Society which will supervise both lay and professional education on cancer in this state, we have the following groups working on this problem—The American Cancer Society, Inc., of New York City, which functions through its Nebraska organization, the chairman and director of which is Dr. Palmer Findley, of Omaha. The executive secretary is Mrs. Thomas L. Houlton, of Omaha. Dr. Howard B. Hunt is treasurer. They are assisted by a Board of Directors, consisting of Dr. Charles McMartin, president of the Nebraska State Medical Association, and Dr.

(Continued on page 84)

Charles McMartin, M. D.

The Opinion Research Corporation recently made a nation-wide survey for the National Physicians' Committee. They have given out the opinion that the public will accept the **first widely known** and **widely available plan** of prepayment medical care whether it be sponsored by the Government, insurance companies or organized medicine.

There can be no doubt that pre-payment medical care plans sponsored by organized medicine are the best means of warding off state medicine. Therefore, let us read carefully the Organization Section of our A.M.A. Journal as well as the editorials and comments in our State Journal, in order that we may be familiar with the pre-payment medical care.

Then we will be in a position to make our own Nebraska Surgical Plan the **first widely known** and **widely available plan** throughout the State.

CHARLES McMARTIN, President.

James F. Kelly, chairman of the State Cancer Committee, all of whom are members of this Board by virtue of the positions they hold in the State Medical Association. Other Executive Board members are Dr. David Findley, Dr. F. Lowell Dunn, and Dr. Herbert Davis. Dr. W. S. Petty, Active Director of the State Department of Health, is also a member of this Board because of his position in the state health department. Attorney Joseph O. Burger is also a member of the Board and is legal adviser.

The American Cancer Society, Inc., will direct the national program for the laymen during the month of April, and will be guided in this state by its subsidiary organization, the American Cancer Society of Nebraska. This latter organization, in turn, will depend upon the newly organized Nebraska Cancer Research and Educational Society for its overall direction of the program for both the profession and public. This assures an all-inclusive program which should put this year's cancer drive on a thoroughly organized and efficient basis.

Last year, we were slow in organizing, and as a result, Mr. Jeffers and his associates, Mr. Ed Schmidt and Mr. R. A. Kirkpatrick, conducted the campaign with only irregular support from the profession. Despite this lack of organization, and therefore principally through the efforts of Mr. Jeffers and his co-workers, $27,464.27 was collected. Sixty per cent of this amount remained in Nebraska to be spent in developing this cancer activity.

This year, Mr. Fred L. Haas, prominent Omaha retail merchant, has consented to sponsor the drive for funds in Nebraska. It is hoped that in all sections of the state, he will have the sincere cooperation of members of the State Association and local lay groups which may be a help to him in this work.

Anyone interested in promoting a local program on cancer should communicate with Dr. Edward W. Rowe, of Lincoln.

JAMES F. KELLY, M.D.,
Chairman Cancer Committee,
Nebraska State Medical Assn.

DR. ALBERT LLOYD COOPER

In the tragic death of Doctor Albert Lloyd Cooper the Nebraska State Medical Association has sustained a loss which will be felt for a long time. Dr. Cooper was a man of singularly fortunate characteristics. He was an indefatigable worker, systematic, quiet, modest, and unobtrusive. He wasted neither energy nor words. A task once assumed was never too light nor too difficult. He accepted it as a responsibility to be fulfilled promptly and to the best of his ability regardless of the time and personal inconveniences involved. He was not an orator. When he had something to say he did so briefly, frankly, and directly. He despised what he called "beating around the bush." In manner and in action he reflected honesty and sincerity.

He had an incontestable faith in the future of organized medicine. This confidence was based on a conviction that a united profession bound to tradition of unselfishness will in time find a satisfactory solution to the many problems which now beset it.

It is consoling that the Nebraska State Medical Association saw fit to bestow its highest honor on Dr. Cooper in electing him President in 1943. His services in that capacity are well known and appreciated by the rank and file of the membership. Even after he completed his term of office as President he remained active in the affairs of the Association. Thus he continued on the Planning Committee and was ever ready to extend a helping hand to those who take their work on the Committee so seriously. He attended the Mid-Winter Session of the Council on February 17, and was the last to speak on the good and welfare of organized medicine. The fatal accident occurred on his way home from the Session. It may truly be said of the man that he lived for organized medicine and he died for it.

DR. GUDAKUNST

Dr. Donald Welsh Gudakunst, Medical Director of The National Foundation for Infantile Paralysis, who died of a heart attack in his room at the Blackstone Hotel, Chicago, January 20, had a long record in medicine and public health and was one of the country's leading authorities on poliomyelitis.

He joined the National Foundation January 1, 1940, and was in charge of the organization's rapidly expanding program of research in infantile paralysis and care and treatment of patients.

Prior to joining the National Foundation, Dr. Gudakunst spent several years in public health work, chiefly in Michigan.

Dr. Gudakunst was born in Ohio, August 18, 1894. He attended Latin High School, Somerville, Mass., and the University of Michigan, graduating as Doctor of Medicine in 1919. His interneship was spent at the University of Michigan Hospital.

Benign Gastric Tumors*

Report of Three Cases

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The infrequency with which benign gastric tumors come to the attention of the clinician, the difficulties in differential diagnosis between them and such lesions as peptic ulcer and carcinoma or other malignant lesions of the stomach, together with the fact that some of these cases present themselves as medical emergencies, constitute sufficient reason for a review of this subject and the presentation of cases illustrating several aspects of the problem.

A review of the literature up to the present time reveals that benign gastric tumors are considered statistically from two viewpoints; namely, the surgical and the pathologic. Boyd(1) states that less than one-half of one per cent of gastric tumors are benign. Eusterman and Senty(2) reported 27 cases of benign gastric tumors in a surgical series of 2,168 cases, or 1.3%. These two reports are representative and lead to the conclusion that benign tumors of the stomach which produce symptoms and require surgical treatment constitute not more than 1.5% of all surgical tumors of the stomach.

From the viewpoint of the pathologist the number of benign tumors of the stomach very greatly exceeds this figure. The most careful and extensive observations on the actual anatomical frequency of these tumors was published by Rieniets(3) in 1930. By a painstaking study of 100 stomachs from consecutive autopsies, he found 21 leiomyomas in 16 stomachs. There were 6 carcinomas in the same 100 stomachs. A second group of 100 consecutive autopsies produced 22 leiomyomas in 16 stomachs and also revealed 6 carcinomas. This indicates that approximately 32% of all stomachs will reveal the presence of leiomyomata when the examination is carefuly made.

Rieniets was apparently interested in, and reported only the leiomyomas. They constitute approximately 70% of the benign tumors observed by the surgeons. Judd and Hoerner(4) made a report on 50 cases in which benign tumors were removed from the stomach. This report did not include cysts, polyposis or hypertrophy of the pyloric muscle. Of the fifty cases, 35 were classed as some form of myoma, under such names as myoma, fibromyoma, leiomyoma and adenomyoma. It is probable, therefore that the total number of benign tumors of the stomach exceeds the 32% indicated by Rieniets.

The chief difference between the non-symptomatic leiomyomata and those which demand surgical treatment seems to lie in the difference in size. Those found by Rieniets at autopsy were non-symptomatic and varied in size from 0.1 to 0.9 cm. in diameter. In a very long series of autopsies only one non-symptomatic leiomyoma was found which exceeded the above limits in size. This one was 2.3x2.2x2.0 cm. On the other hand, those which were removed surgically at the Mayo Clinic during Rieniet's study had an average size of 3.4x2.61x2.08 cm. Surgical specimens have been reported having a diameter of 20 to 30 centimeters and weighing as much as 6,500 grams (Golden and Stout(5)), and in one of our cases the tumor measures 14 cm. in diameter.

Statements regarding the locations of benign tumors in the stomach seem to vary also, with the surgical and pathologic points of view. Rieniets(3) states that the tumors are about equally divided between the anterior and posterior walls of the stomach which suggests a rather even distribution. Surgically speaking, Lahey and Colcock(6) state that the most common location is in the lower portion of the stomach and that the incidence of involvement for the two curvatures is about equal. Golden and Stout(5) place 60% in the pyloric region, 25% in the pars media and 15% in the cardia. They state that twice as many are found on the posterior, as on the anterior surface. Judd and Hoerner(4) found 66% in the antrum, 24% in the mid-gastric area and 10% in the cardia. One must assume that for some reason benign tumors in certain parts of the stomach grow to greater size than in others and that the location of these larger tumors, as well as their relatively large size has to do with the production of symptoms.

In Rieniet's(3) study no evidence could be found of malignant transformation in either the surgical or the non-surgical specimens.

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*From the Department of Internal Medicine, The Lincoln General Hospital.

Judd and Hoerner(4) state that in two instances among the 50 cases which they reported, there was malignant transformation. At the opposite extreme, Lahey and Colcock(6) report that, of 7 tumors removed, 5 showed sarcomatous degeneration. Benign metastasizing lieomyoma with metastases in the liver has been reported by Melnick (quoted by Christopherson(7)). In view of the high percentage (71) of malignancy reported by Lahey, et al, one can not say that it is rare but the weight of evidence suggests that this is true.

Clinically, those cases requiring surgical treatment seek medical aid because of symptoms of obstruction, or because of hemorrhage. In the 27 cases reported by Eusterman and Senty(2) hemorrhage occurred in 37%, and obstruction 25%. In the 14 surgical cases included in Rieniets' report the reasons for removal were hemorrhage and obstruction, of which the former was the more frequent.

Judd and Hoerner state that in their 50 cases some form of dyspepsia was present in 60%. Often the symptoms were vague and not diagnostic. Vomiting occurred in 34%. He believed that the most frequent sign was secondary anemia, and states that occult blood in the stool was found more frequently than in peptic ulcer. 22% vomited blood.

Golden and Stout(5) recount the presence of "pseudo-ulcer" symptoms consisting of epigastric pain and burning, nausea, vomiting and anorexia. The symptoms were not necessarily related to meals and were present in 30% of their cases.

It seems from the diversity of symptoms reported, that the subjective manifestations aside from those conected with hemorrhage and obstruction, are vague and diagnostically insignificant.

Bleeding is due to the marked tendency for ulceration to occur in the mucosa covering the tumor, with rather deep penetration into the substance of the tumor itself. Eight of 14 in one series (Rieniets) were ulcerated. Those which were ulcerated were nearly twice as large as the average size of the surgical specimens. This seems to indicate one reason for the relative unimportance of the very small tumors. Unless they are so placed as to cause obstruction or to act as irritating factors in producing pylorospasm, they do not cause important symptoms until ulceration and bleeding occur.

The average age at which these tumors produce symptoms is late. The onset is usually in the fifth and sixth decades. This late appearance of symptoms is probably related to the very slow growth of the tumors, most of them never reaching a sufficient size to ulcerate or obstruct until they have been present many years.

The differential diagnosis lies, largely, between benign gastric tumor, an ulcerating or obstructing carcinoma or gastric ulcer. The roentgen examination must furnish the conclusive evidence upon which to base the differential diagnosis. The relative rarity of benign tumor producing hemorrhage or obstruction may lead the clinician to assume that the symptoms and signs are due to one of the more common lesions, and, unless the roentgen findings are convincing, the diagnosis of inoperable carcinoma may be made. In this case the patient may be permitted to die of a perfectly operable condition. It is this point which makes the study of these tumors important beyond what their relative infrequency indicates.

It seems that, in most instances, certain roentgenologic features are present from which a clear cut diagnosis may be made. In general, the following findings as quoted by Golden and Stout(5), are strongly suggestive of an intragastric benign tumor: 1. A central or marginal filling defect, usually rounded and smooth, occasionally exhibiting a crater shadow in the dome. 2. There is no contraction or spasm of the stomach. 3. Peristalsis is uninterrupted and the gastric wall remains pliant. 4. Rugae are not obliterated as in carcinoma or thrown into convergent folds, as in ulcer.

The following three cases serve to illustrate many of the points enumerated above. They represent both the obstructive and the hemorrhagic types.

Case 1. Mrs. L. J. (Hospital Number, 15458, L.G.H.) was a white housewife 54 years of age when she presented herself, in January, 1931, with the following history. She had had a medically uneventful life excepting for severe typhoid fever at age 7, and severe hay fever for two years. She had borne seven children and had no miscarriages. The menopause had been uneventful at the age of 50.

The presenting symptoms were attacks of upper abdominal pain accompanied by vomiting and she stated that she had been jaundiced on several occasions. These attacks had occurred from time to time for about two years and the last one had been one month before admission. She often had the sensation of having a heavy ball in the epigastric region, especially since the last attack of pain. She had lost 61 pounds (27.7 kilos) in weight, was markedly constipated and had a poor appetite. No blood had been noted in the stools or vomitus. She had avoided meat, milk, potatoes and pastries, but more because she had come to dislike them than because they produced distress.

Her family history was irrelevant.

The physical findings on examination revealed a temperature of 99, pulse 84 and respirations 18. Submaxillary lymph nodes were slightly enlarged. She was edentulous. A faint rough systolic murmur was present at the apex of the heart and transmitted to the axilla. The heart was not enlarged and no signs of cardiac decompensation were present. There was slight tenderness in the epigastrium just to the right of the midline. Otherwise the abdomen was not remarkable.

The patient did not appear acutely ill and was still fairly well nourished regardless of her weight loss. She showed no icterus. Otherwise the physical findings were within normal limits.

The urine was pale and of 1.004 specific gravity. It revealed no abnormal chemical of microscopical elements. The white cell count in the blood was 5,200 per cm.

Gastric analysis showed that free hydrochloric acid was absent, lactic acid was present and no blood was found. Stool specimens were negative for occult blood.

The history suggested gallbladder disease with colic and jaundice. However, since there had been such marked weight loss with the development of distaste for staple foods as meat, milk, potatoes and pastries, the possibility of malignant disease of the stomach or gallbladder had to be given serious consideration. The laboratory data were not diagnostic, therefore when x-ray examination of the gallbladder and stomach were requested the provisional diagnosis was gallbladder disease, though carcinoma of the stomach was mentioned as a possibility.

X-ray examination of the gallbladder after the oral administration of gallbladder dye was reported as follows: "The gallbladder is about 3 inches long, smooth and regular in outline, pear shaped and emptied in the normal time."

X-ray of the gastro-intestinal tract was reported as follows: "The stomach was medium in size. It was hyperperistaltic. There was marked pylorospasm. In addition there was a filling defect in the pyloric end which was permanent and remained throughout the entire series. It has the appearance of an organic lesion. The emptying time was within the normal limits . . ."

On the basis of the above x-ray findings the pre-operative diagnosis was made of carcinoma at the pyloric end of the stomach.

On February 12, 1931, an exploratory laparotomy was performed by Dr. Harry Everett, Sr. He found a small hard tumor in the lesser curvature just prepyloric and resected it with a generous border of normal gastric wall.

The sections of the tumor reveal a pure leiomyoma lying below the submucosa and covered by normal gastric mucosa.

The patient made an uneventful postoperative recovery and was followed clinically for several years during which time she had no recurrence of her symptoms.

It would seem that this tumor could not have produced obstruction but that its proximity to the pyloric muscle was an irritating factor in producing pylorospasm. The x-ray examination showed this to be present during an interval between her acute attacks and it is fair to assume that the acute episodes were exaggerations of this spasm at which time there were pain and vomiting. If she was ever actually jaundiced it must have been due to spasm of the spincter of the common duct. Her "jaundice" may have been a sallow color concomitant with the acute attacks of pain and vomiting. This sign is often unreliable unless the physician observes it himself.

Case 2. C. B. (Hospital number 26765, L.G.N.), a spinster of 59 years had been asthmatic since the age of 7 years. She had her tonsils and adenoids removed and there had been two operations on the nasal septum. The gallbladder and appendix were removed in 1937. She had fractures of two upper lumbar vertebrae, three ribs and the right shoulder in 1933. She had an uneventful menopause at the age of 34 or 35.

Her father died of pernicious anemia and her mother of cancer of the liver.

She was hospitalized in the Lincoln General Hospital in 1935 because of asthma. Dr. George Underwood found that she was sensitive to a number of foods and treatment was fairly satisfactory.

I first observed her in the Lincoln General in 1943 because of two groups of symptoms—digestive and cardio-respiratory. She complained principally of gas in the stomach, acid regurgitations, a burning sensation in the epigastrium to the right of the midline and beneath the right scapula and occasional nausea and vomiting. The symptoms were usually present following the noon and evening meals and were worst when she took beans, chocolate, pork or cabbage. The sensation in the epigastrium was also described as a full distressing feeling which was relieved upon belching. There was a tendency to be constipated and sometimes there was cramping pain in the abdomen upon defecation.

She still had some trouble with asthma. In addition she became breathless, fatigued and nervous on exertion and complained of tingling in the extremities and fluttering of the heart on stair climbing.

Examination revealed a narrow and very deep chest, in part due to a kyphosis. Respiratory motion was greatly limited and the lung fields showed hyperresonance on percussion and the feeble breath sounds characteristic of emphysema. Signs of bronchospasm were present part of the time.

The rate of the heart beat was 90, the rhythm regular and no murmurs were heard. The heart did not appear to be enlarged. Examination of the abdomen was essentially negative.

The urine, blood count and Wassermann were not remarkable. The sedimentation rate of the erythrocytes was 14 mm. in 60 minutes. The electrocardiogram was normal.

Her vital capacity was 1,400 cc. or 43% of the normal for her height, weight, age and sex.

On the basis of her long continued asthma, her emphysema, the low vital capacity and the symptoms referable to the cardiorespiratory system, a diagnosis of chronic pulmonocardiac failure was made.

Because of the rather numerous symptoms relating to the gastro-intestinal tract, an x-ray was made. After a description of the study the roentgenologist concluded that the "Impression: Negative upper gastro-intestinal tract." It was felt therefore, that the digestive symptoms were probably not due to pathology in the gastrointestinal tract, and that we should attribute these symptoms to the cardio-respiratory disease with some disturbance relating to her old vertebral fracture. She was, therefore, dismissed on treatment which was considered appropriate.

A little more than a year later, on November 18, 1944, she was admitted as an emergency.

She had vomited quantities of blood six hours before admission. This had been preceded by gnawing pain in the epigastrium, to the left of the midline, for several weeks, the passage of tar-like stools for two days and by nausea and vomiting for 24 hours. She felt very weak and her usual dyspnoea had increased in severity.

The physical examination, which was rather brief because of her precarious condition, revealed marked pallor, a pulse rate of 130 and a blood pressure varying from 95/62 to 105/65. The abdomen was not remarkable.

When admitted, her hemoglobin was 7.6 grams per 100 cc. of blood and the erythrocyte count 2.97 millions. The leukocyte count was 11,000.

She was given nothing by mouth excepting chipped ice and demoral was chosen as a sedative because morphine was considered contraindicated by her pulmonocardiac condition. She was transfused several times, at first in small quantities and later in larger amounts.

At the end of six days she was no longer passing tarry stools, she had vomited no more blood and the blood urea had dropped from 50 to 27 milligrams per 100 cc. of blood. It was therefore considered safe to have the upper gastro-intestinal tract studied by x-ray. The following is the relevant portion of the report on this study: "There is a large, rounded, smooth, filling defect in the fundus of the stomach through which definite rugae can be seen. The lesion shows clearly in the P.A. oblique projection . . . "

COMMENT

"Polypoid lesion in the fundus of the stomach which was present two years ago and which has shown increase in size. This lesion probably represents a low grade carcinomatous polyp and may be operable."

Re-examination by x-ray was made a few days later in which the mass was again visualized and the following additional information was gained. "There is a definite hiatus hernia extending about one inch above the diaphragm. There is, in the posterior portion, an outpocketing which has the appearance of a diverticulum or a peptic ulcer of the lower end of the esophagus . . ."

Inasmuch as hemorrhage frequently occurs in the herniated portion of the stomach, presumably from ulceration, this last observation served largely to cloud the issue as to differential diagnosis. However, the presence of a globular intragastric mass, which had grown considerably in size and which presented the distinct probability of being a benign tumor, caused us to favor surgical exploration. The problem of differentiating this bleeding tumor from a carcinoma was decided in favor of the benign lesion largely on the roentgenologists report yet the exploration was undertaken with the distinct reservation that the tumor might be malignant and that, if benign, the bleeding may have come from an ulcer in the hiatus hernia.

On December 18, 1944, Dr. S. O. Reese operated on this patient. Incision was made in the anterior wall of the stomach and a tumor was found originating from the fundus by a broad, elongated pedicle. The tumor was about 2½ by 1½ inches in diameter. Rugae were seen on the mucosa covering the pedicle but that over the tumor was smooth. The tumor was smooth and on the mid-surface was a deep punched out ulcer. The pedicle was clamped and divided by cautery. The pedicle was closed with mattress sutures.

The postoperative period was uneventful. During the year which has elapsed since the operation the patient has had no clinical evidence of gastro-intestinal disturbance.

The pathologists report indicates that the tumor was 6x3x3 cm. in size and that it was "within the muscularis . . ." This seems to indicate not only that the tumor arose in the muscular coat of the stomach but that it carried some of this layer with it as it became pedunculated. The ulcer penetrated through the mucosa and into the substance of the tumor. The pathological diagnosis was "Intramural leiomyoma of the stomach with ulceration of overlying stomach mucosa."

Case 3. Mrs. S. S. (Hospital No. 51563, Lincoln General Hospital), a white female of 86 years was admitted to the Lincoln General Hospital on January 7, 1944, apparently moribund and with blood passing from the rectum.

Because of her condition and some degree of senile dementia it was impossible to obtain a satisfactory history. It was learned, however, that for the past two or three days she had been passing blood from the rectum and had finally become so weak that she was admitted as an emergency.

Examination revealed a restless, pale old woman, weighing about 140 pounds. There was a well healed surgical scar over the left great trochanter and slight but apparent shortening of the left leg. The pulse was 88, respirations 26 and temperature 97.6 degrees Fahrenheit. The blood pressure was 100 systolic and 72 diastolic.

The mucous membranes appeared pale, otherwise there was nothing remarkable about the head and neck. The thorax was slightly assymmetrical because of a scoliosis. The lung fields were free of rales and showed no dullness. The heart was markedly enlarged to the left but the rhythm was regular and no murmurs were heard.

The abdomen was not distended and there was no rigidity. The liver and spleen were not palpable. It was thought that a mass could be felt in the left lower quadrant perhaps in the sigmoid colon. Rectal examination showed that no tumor was present in the rectum and no abnormality of the pelvic viscera was found.

There was no dependent edema and no palpable lymph nodes were found. This patient had been in this hospital for six weeks in 1942 because of a fractured hip. This had recovered well under appropriate treatment but the record revealed a hemoglobin of 9 grams per 100 cc. at that time. There was also a moderate albuminuria.

On the present admission she had 5 grams of hemoglobin per 100 cc. of blood and the erythrocytes numbered 2 millions per cu mm. of blood. The leukocyte count was 13,000 with a differential count which was unimportant. Twelve hours after admission the hemoglobin was 4.5 grams per 100 cc. of blood and the erythrocyte count 1.88 millions. The urine was of 1.015 specific gravity, and contained albumin 1 on the basis of 4. There were a moderate number of leukocytes and erythrocytes in the specimen examined.

This patient did not vomit or pass any more blood from the rectum after she was admitted. She had urinary incontinence. She took some food. For two days it appeared that her bleeding had stopped and she did not seem any worse and perhaps somewhat better than when admitted. Then, rather abruptly, she became semi-comatose, the breathing became stertorous, she became cool and sweating was marked. The pulse rose abruptly, the lung fields became filled with large moist rales and she died.

The diagnosis recorded before the autopsy was carcinoma of the stomach.

The autopsy revealed a large (14 cm. diameter) leiomyoma of the stomach, attached to the fundus. It was ulcerated, and though the ulcer appeared small there was a large (estimated 600 cc.) recent intraluminal hemorrhage. In addition there were marked cardiac hypertrophy (590 grams), generalized arteriosclerosis, coronary sclerosis grade 3, congenital stenosis of the right ureteropelvic junction with moderate dilatation of that kidney pelvis, arteriosclerotic nephritis, cholelithiasis and the old healed fracture of the hip.

Apparently a terminal massive hemorrhage had occurred and she died before the blood had been carried as far as the rectum.

These three cases present the common features found in most cases of benign intragastric tumor which become clinically important and require surgical intervention, namely, obstruction and hemorrhage. One of the three died as a result of hemorrhage from the tumor and two survived. In the two surviving cases which were thoroughly studied, the pre-operative diagnosis in one was carcinoma of the stomach and, in the other, benign intragastric tumor. The third case was in such condition that proper study could not be conducted, and the diagnosis before autopsy was carcinoma of the stomach. These points impress on one the seriousness of the lesion and the difficulty in making a differential diagnosis.

CONCLUSIONS

1. Somewhat over 30% of all stomachs probably contain benign tumors, a large percentage of which are leiomyomata.

2. These tumors rarely become important from the viewpoint of symptoms and treatment, since only approximately 1.5% of all surgical gastric tumors are benign.

3. The great majority of them remain symptomless and of no importance because they are exceedingly slow in growth and are so situated in the stomach that they do not cause obstructive symptoms.

4. When the tumor does reach a considerable size it is likely to ulcerate and bleed or its pedicle may elongate until obstruction at the pylorus occurs. In those placed very close to the pylorus obstructive symptoms may result with a much smaller and even a sessile type of tumor. It is suggested that those in close proximity to the pyloric muscle may cause pylorospasm.

5. The symptoms produced are varied and not significant in differential diagnosis. Blood in the stools, secondary anemia, gross and obvious hemorrhage as indicated by hematemesis and frank blood from the rectum, evidence of obstruction at the pylorus

and the characteristic roentgen findings of benign intragastric tumor are the important findings.

6. Differential diagnosis is important chiefly to assure operative intervention and thus avoid the fatal conclusion that one is dealing with an inoperable tumor of the stomach.

BIBLIOGRAPHY

1. Boyd, William: Surgical Pathology. Second Edition, 1931. W. B. Saunders Co., page 330.

2. Eusterman and Senty: Benign Tumors of the Stomach. Surg., Gynec. and Obs., 34:5 (Jan.) 1922.

3. Rieniets, J. H.: The Frequency and Pathologic Aspects of Gastric Leiomyoma. Proc. of the Staff Meetings of the Mayo Clinic, 5:363 (Dec. 17) 1930.

4. Judd, E. Starr and Hoerner, M. Tischer: Benign Tumors of the Stomach. Collected Papers of the Mayo Clinic, 27:23, 1935.

5. Golden, T. and Stout, A. P.: Smooth Muscle Tumors of the Gastro-intestinal Tract and Retroperitoneal Tissues. Surg., Gynec. and Obs. 73:784 (Dec.) 1941.

6. Lahey, Frank H. and Colcock, Bently P.: Diagnosis and Surgical Management of Leiomyomata and Leiomyosarcomata of the Stomach. Ann. of Surg. 112:671, 1940.

7. Christopherson, Frederick: Leiomyoma Malignum of the Stomach. Surgery 101:381 (Sept.) 1941.

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IN THIS ISSUE

THE diagnosis of a tumor in the stomach, as a rule, brings alarm to both physician and patient. The general tendency is to associate gastric tumors with malignancies. There are, however, tumors that are benign. An interesting paper on this subject is submitted by Drs. George W. Covey and Floyd L. Rogers of Lincoln. You will find it on page 85

MANY of our school children struggle with hearing difficulties which, in too many instances, are not discovered unless there is an awareness of the possibility of this handicap in the individual child, and unless this awareness is followed by special tests designed for diagnosis of deafness. An interesting paper on this subject is submitted by Dr. Edmund Prince Fowler, Jr., of New York City, who until recently, was a Major at the Lincoln Air Base. Dr. Fowler has done much work on this subject and while in the state he was a consultant to our Committee for the Conservation of Hearing. Read this paper on page 91

WE are glad to submit an article on bronchogenic carcinoma written by Captain John C. Eagan, formerly of Madison, Nebr. It is a clear discussion of etiology, symptoms and prognosis, together with possibilities for early treatment. The paper is on page.. 94

WE present two papers covering various phases of medical economics given as a symposium before the January meeting of the Omaha-Douglas County Medical Society. Dr. Roy Fouts, Speaker of the House of Delegates of the American Medical Association, discusses the Response of the Physician to Regimentation, and Dr. A. J. Offerman, President of the Nebraska Surgical Plan discusses the features of our own Plan. Both papers should be read carefully in order that physicians can keep themselves informed on these problems because only through information properly utilized will it be possible for American Medicine to remain in the control of physicians. Turn to page.......... 99

The Deafened School Child in Nebraska

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Surveys have shown two to thirteen percent of the children in the United States have defects in their hearing, depending on the method and criterion used. If we use the most reasonable figure, 6%, there should be 14,000 deafened school children in Nebraska and about 2,000,000 in the United States.(1) Of course, there are, in addition, college and graduate students who are hard of hearing.

Since 1929, the Nebraska school law* has required that every child be examined to ascertain whether or not he is suffering from defective hearing. Also, the Department of Health was enjoined to provide the school districts with instructions and apparatus in order that these tests might be carried out. The present writer is informed that, for one reason or another, it is in the latter instance that the application of the law has fallen down. This is regrettable.

A few enlightened schools have carried out the law in their own way. If there is a nurse, she may test with voice and whisper. A few communities have done screening tests on their school children with a phonograph audiometer. This instrument consists of an electrical phonograph with forty head sets through which the child can listen to a phonograph record of spoken numbers delivered with decreasing loudness. Each child then writes down the numbers that he is able to hear. His score sheet immediately demonstrates the weaker numbers spoken which are not heard. The parents of the children weeded out by the test are thereupon notified that their child is hard of hearing and a consultation with a physician is advised. Here trouble often ensues. The parent does not attach importance to a mild degree of deafness and should be made to realize that if anything is to be done to improve the child's hearing, it should surely be done in the incipient stages of the disease. Quite as serious a difficulty is the fact that much too often, when a parent does take the child to a physician, the latter does not know what to do. There is a prevalent belief that nothing can be done for deafness. This is not the case—particularly in children.

In surveys, fifty to sixty-five percent of the children with hearing losses were found to be improved after suitable medical care has been provided.(2) In ten to twenty percent, further progression of the disease was prevented. When more care was given to their colds and the diseased tonsils and adenoids removed, the hearing often returned to normal. If not returned to normal many were at least improved; for example in many cases recurrent discharge from the ears was stopped. Recently, Crowe's method of treating the adenoid tissue around the mouth of the eustachian tube with radium has been perfected.(3) It is this tissue in the mouth of the eustachian tube even more than the adenoid in the midline which is the most common predisposing cause for progressive deafness in school children. Radiation therapy is now a standardized procedure for this and is available to all well-trained otologists. Its effectiveness in producing a much higher incidence in arrest of the disease and alleviation of deafness is greater by far than heretofore. Radium in suitable applicators may be bought in the larger communities and may be borrowed, or rented, in the smaller communities. Its use is less expensive, moreover, than many less successful methods of clearing the blockage of the eustachian tube which so often produces infection in the middle ear and subsequent deafness.

Many deafened children simply have wax or a foreign body in the ear canal and are cured when these are removed. There are other less common causes of deafness which can be cured, or alleviated,—for instance, a furuncle in the ear canal.

All too often the physician produces a serious psychological reaction when he says,

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*The Nebraska school law, Section 79-2122 through 2127, covers physical examination. In part, it covers some of the following information: "It shall be the duty of every teacher, engaged in teaching in the State, separately and carefully to test and examine every child under his jurisdiction to ascertain if each child is suffering from defective sight or hearing or diseased teeth or breathes through his mouth. If such tests determine that any child has such defect, it shall be the duty of the teacher to notify the parent of the child, in writing, of such defect and explain to such parent the necessity of medical attention for such child . . . The Department of Health shall prescribe rules for making such tests and shall furnish the Board of Education and the Board of Trustees of school districts rules of instructions, test cards and other useful appliances for carrying out the purpose of these sections . . . It shall be the duty of the Boards of Education to enforce the provisions of these sections" . . . The section also provides penalty for the violator of the provisions.

"nothing can be done for this child." He forgets that there are ways of treating the child besides direct medical care, such as office manipulation, surgery or medication. For example, almost all hard-of-hearing children obtain great benefit when it is recognized that they are hard of hearing and not merely stupid. The special attention that their handicap deserves, is received and, almost immediately ,they blossom and become indistinguishable from normal children. Most dramatic is the child who is moved to the front of the school room and develops into the brightest child in the class after having seemingly been one of the dullest.

Lip reading teachers, prescription of hearing aids and the referal of totally deaf and extremely hard-of-hearing children to special teachers or schools for the deaf are other important non-medical aids that can be given. The general belief that children are unable to use hearing aids is unfounded. On the contrary, they can often use them with great benefit, especially in the school room . If necessary, individual aids can be fixed to the desk or if the number of deafened children makes it warranteed, a group aid can be used.

It is amazing that so little has been done in most communities in view of the fact that techniques for testing hearing and management of the deafened child have been perfected. It has been said that the cost was too great. This is fallacious. The cost of the entire program, i.e., screen testing for selection, the apparatus therefor, examination by qualified school otologists, lip reading—and even hearing aids for special children—is less than the cost of the years that deafened children repeat in school when the handicap is not detected.(1)

Even in those communities where hearing tests are done, often the methods are inadequate according to modern concepts. Direct testing with voice or whisper has been repeatedly shown to be open to tremendous error (up to 200% of distance) unless a special monitoring instrument is used. It is now known that group testing with fading number phonograph records, such as described above, does not screen out all the children who are potential candidates for deafness and which could be picked up were more precise methods used. Pure-tone tests with an audiometer are more accurate and screen out many more children who are in need of help.

Although any system is better than the all too prevalent no system, the author believes that the most economical method of detecting deafness and incipient deafness in large groups is a modification of the method first used at the World's Fair in New York in 1938(4). This consists of the use of multiple telephone receivers, preferably of high quality so that they can be well matched. These are attached to an ordinary audiometer which provides musical notes of calibrated intensity. The notes in octave steps are presented to the child in one, two and three spurts of tone at decreasing levels of loudness. The child writes down the number of spurts of tone that he is able to hear. His paper, therefore, demonstrates immediately at what degree of loudness he can hear each of the pure tones presented to him. Naturally, if he cannot hear the weaker levels, he cannot record how many spurts occurred. From his recording there can immediately be transcribed the hearing in decibels over the entire useful musical scale. This has been shown to be as accurate as a pure tone graph (audiogram) done by the ordinary individual method(5). The advantage of such a method is that with one machine and one trained operator, hearing data which are essential for the diagnosis and prognosis of hearing loss are available after one operation which takes perhaps thirty minutes. Since thirty or forty can be done at once, this means less than one minute per child.

It is all very well to say that we are primarily interested in how well children hear speech and therefore it is only necessary to test for speech. This is not true. Speech tests are notoriously inaccurate and hard to evaluate, whether they are done directly or with a machine, and they give no information which can be used for diagnosis or prognosis. The pure tone audiogram on the other hand is accurate and can be interpolated so as to give an index of the patient's ability to understand speech.

For diagnosis, it is essential to test the hearing for both air and bone conduction. Audiograms could be done in groups with multiple bone conduction receivers, but in the present state of our knowledge, this is not advised for the physician can ascertain the essential bone conduction data in a few moments by doing bone conduction audiograms on all those children who have abnormal pure tone air conduction audiograms.

The number of school children that are

hard of hearing has been known by ear specialists for years. The number who develop deafness in later life from disease in childhood is even greater. It is unfortunate that this knowledge has not reached the lay public, particularly parents, educators and those responsible for the care of handicapped children. A determined campaign should be undertaken to inform every one concerned of the problem. The Department of Otolaryngology of the University of Iowa has an excellent sound film on the subject entitled, "The Right to Hear"; this should be widely used by Parent-Teacher Associations, Chambers of Commerce and other groups who are interested in community welfare. A few articles in leading newspapers would also help. Many things can and should be done for the hard of hearing child.

BIBLIOGRAPHY

1. Berry, Gordon: Management of the Deaf and Hard of Hearing. Medicine of the Ear, (E. P. Fowler, Jr., Ed.) Thomas Nelson & Sons, New York, 1939, p. 562.

2. Report of the Sub-committee on Acoustically Handicapped Children, Board of Education, the City of New York, 1941.

3. Crowe, S. J. and Baylor, J. W.: Prevention of Deafness. Jr. A.M.A., Feb., 1939, Vol. 102, p. 585.

4. Testing America's Ears. Bell Telephone Quarterly, Vol. XIX, 267, Oct., 1940. Steinberg, J. C.; Montgomery, H. C.; Gardner, M. B., J. Acoust. Soc. Am., Vol. 12, pp. 291-301, 1940.

5. Harris, J. Donald: Group Audiometry. Jr. Acoust. Soc. Am., Vol. 17, p. 73, July, 1945.

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TREATMENT OF SHOCK WITH REFRIGERATION

Treatment of shock by refrigeration is a revolutionary technic which has developed during the last six years, according to two doctors writing in a recent issue of The Journal of the American Medical Association.

Lyman Weeks Crossman and Frederick M. Allen, both from the City Hospital of New York, say that cold reduces pain and swelling, preserves injured tissue, restrains infection until the patient is strong enough to undergo an operation, and serves as a shockless anesthetic in surgery. Shock is a profound depression of bodily functions caused by injury or strong emotion.

Several shock cases cited by the authors would have proved fatal without the invaluable few hours of respite afforded by refrigeration. One case was that of a man who suffered amputation of both legs by a train. "By packing the stumps in ice (the patient) was enabled to respond to restorative measures and undergo successful operation after 58 hours, the mangled tissues remaining perfectly fresh," the article says.

In another case a patient suffered serious abdominal injuries in a blast accident. One hand was torn off and the other mangled. "Because of the severe degree of shock and traumatism to the abdominal contents, immediate amputations might have been fatal," the article says, adding: "The stumps were packed in ice for two and one-half weeks before the general condition warranted reconstructive surgery."

In a discussion of the paper, Dr. Harry E. Mock, Chicago, says that in approximately 50 major amputations under refrigeration not a single case of shock has been recorded. "Recently, both lower legs were amputated just below the knees of a man aged 22 because of congenital deformities. The patient continued to talk and even laugh as first one leg and then the other was removed under refrigeration anesthesia." After the operation neither blood transfusions nor stimulants were used. Furthermore, Dr. Mock states, "under any other anesthesia the fear of shock would have ruled out the removal of the two legs at one time."

Drs. Crossman and Allen state that refrigeration keeps the tissues from deteriorating until the patient can have his resistance built up. Moreover he is saved further shock for the cold serves as a wonderful anesthetic, and the heart need not suffer added strain. The ability of patients to enjoy full meals immediately before and after refrigeration surgery illustrates the difference from other methods.

The two doctors are especially interested in seeing this form of therapy applied to the treatment of burns and to military surgery in general.

The treatment of shock by reducing the body temperature is precisely opposite to the tradition of blankets, hot water bottles and electric light cradles. According to the authors "both clinical and experimental observations now leave no doubt that the difference between high and low environmental or bodily temperatures can amount to the difference between life and death in shock."

Refrigeration retards shock, affording a greater length of time for other treatment and better ability to respond to it. Within limits, the lengthened survival can be converted into permanent recovery by the simple administration of fluids by mouth or by salt solution injected beneath the skin.

The essential feature in shock is a need for fluid in the tissues. Drs. Crossman and Allen contend that the points of superiority of salt solution over plasma, the accepted treatment, are that "it is more conveniently and abundantly available, is tolerated safely in larger quantities and passes most readily into the tissues to supply their specific need for fluid and salt."

Bronchogenic Carcinoma of the Lung

Report of a Case

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Today primary carcinoma of the lung is a commonly recognized tumor. As late as 1913, Adler had collected only 372 cases from the literature, but present day estimates place the number of new cases diagnosed each year at 8,000 and about 13,000 patients are under treatment at all times. At present carcinoma of the lung is in third place, as regards frequency of occurrence, being exceeded only by carcinoma of the stomach and of the large bowel. The purpose of this paper is to report a case with several interesting and unusual features, and with comments on the present day concepts of diagnosis and treatment of bronchogenic carcinoma.

REPORT OF A CASE

A twenty-seven (27) year-old white male was admitted to the Regional Station Hospital, Fort Riley, Kansas, on the 25th of September, 1944, complaining of pain in the left upper abdomen, left chest and back, of sudden onset. He had shortness of breath, a non-productive cough, a feeling of tightness in his chest and rapid respiration. Past history included a streptococcus infection of his throat when he was a youngster. He had frequent colds with a chronic residual cough. In November of 1942, a routine chest film was taken and interpreted as negative. (Fig. 1). On a routine physical examination in May of 1944, (Fig. 2), the patient was told that he had a lesion in his left lung. He was sent to an Army General Hospital in June of 1944, where diagnosis of cystic disease of the lung was made. He returned to duty and the cough persisted. He stated that two weeks prior to his admission he had a slight chill and a sore throat which involved both sides of his throat. Two days before admission to this hospital, while getting into his car, he noted a sudden catch in his left chest and a general aching pain in his left upper abdomen that radiated to his back and lower left chest. A marked shortness of breath was observed after slight exertion. His breathing had become extremely rapid and shallow and he had a feeling of tightness in his lower ribs and back. The pain in his back was noted particularly when the patient was lying on his back, and when he turned to his left side this pain was relieved. His cough was described as shallow and productive of small amounts of sputum. The day of admission the patient felt quite warm, extremely weak and very uncomfortable because of the pain in his left chest and abdomen.

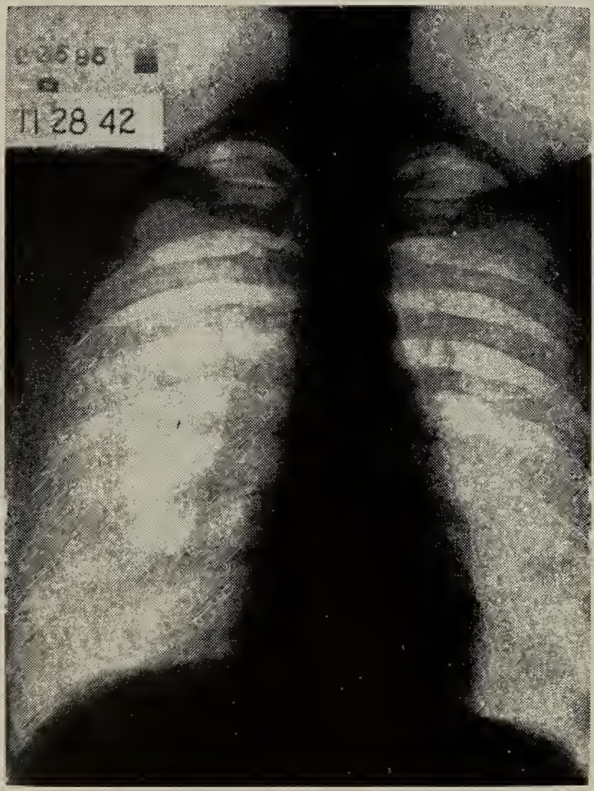

Figure 1. Initial film showing an unexplained density extending downward from left hilus.

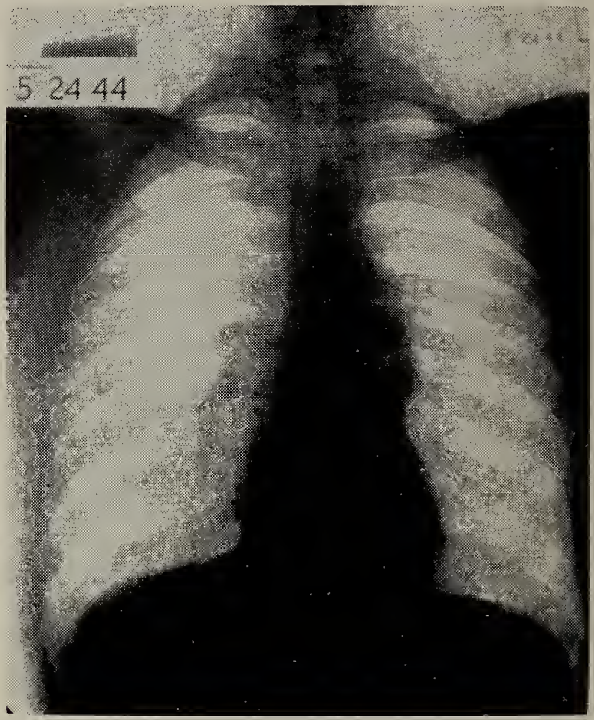

Figure 2. Eighteen months later showing the mass more clearly defined and larger.

Physical examination: The temperature was 100° F., pulse 90 beats per minute and respirations 40 per minute. The skin was warm, moist and generalized pallor was noted except for the left cheek which was flushed and dry. The veins in the left side of the neck were full and prominent, but no visible pulsations were present. The left intercostal spaces were obliterated. There was dullness in the lower three-quarters of the left chest, breath sounds were absent in the lower half of the left chest. Resonance was impaired in the medial half of the right chest, the lateral half being hyperresonant. The heart rate was 90 and the apex beat was 3 cm. to the right of the sternal border in the fifth interspace. The heart in other respects was normal. Blood pressure 138/76. There was spasm of the upper half of the left rectus muscle and the lower edge of the liver extended to just above the umbilicus on the right and to about three fingers breadth below the costal margin on the left. There was moderate enlargement of the lymphatic glands of the left axillary and left inguinal regions. The 11,500 leukocyte count was with a normal differential. On September 26 a thorasentesis was performed, and 60 cc. of bloody fluid was removed which was found to contain no tumor cells on direct smear or in paraffin sections of the centrifuged sediment.

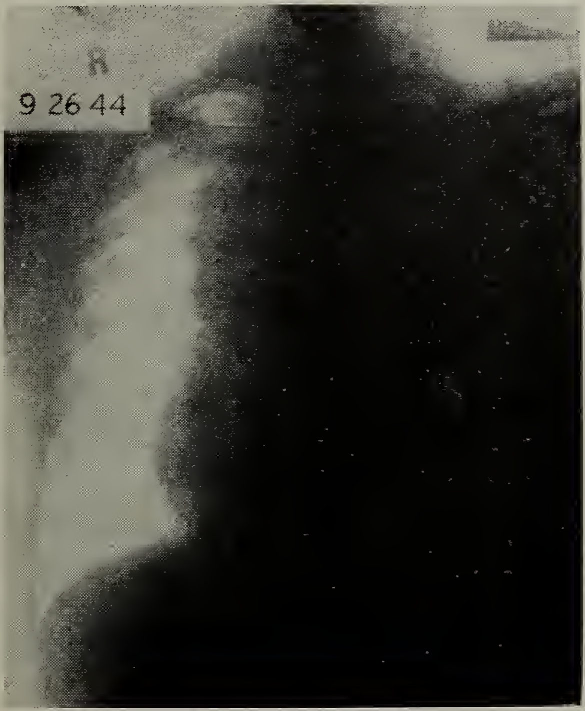

Figure 3. Complete opacity left with a shift of heart and mediastinal mass to the right.

Review of Roentgen findings (Fig. 1 to 5): November 28, 1942, x-ray examination of chest revealed a widening of the mediastinal shadow with evidence of a soft tissue mass, lying along the left superior cardiac border. The mass appears somewhat smooth along its lateral borders and is well demarcated.

Film of May, 1944, showed a definite enlargement of the previously reported soft tissue mass which appears to be mediastinal. Transverse diameter of the cardiac shadow is within normal limits in comparison to the transverse diameter of the thoracic cage. The mass, at that time, appeared to be somewhat more nodular and has a discrete lateral edge. At that time it was thought the lesion might be either a mediastinal neoplasm, lymphoblastoma, or bronchogenic carcinoma. On Septemer 25, 1944, reexamination of the chest revealed a dense homogeneous opacity, completely obscuring the entire left lung field blending with the mediastinal, cardiac and diaphragmatic shadows. There was gross displacement with rotation of the heart to the right. The contour of the great vessels on the left was obscured by the presence of a non-pulsating nodular opacity, which was lying anterior and to the right of the great vessels. The esophagus and trachea were displaced to the right posteriorly by the nodular density described above. Radiographic and fluoroscopic findings were interpreted as the result of a massive fluid accumulation in the left chest, resulting in a shifting of the mediastinum to the right with the nodular masses occupying the right and left anterolateral aspects of the superior mediastinum. On comparison with the previous films, the findings suggested the possibility of a lymphoblastoma or bronchogenic neoplasm possibly a carcinoma. The diagnoses of intrathoracic malignancy, primary site, left lung, and pleurisy, serosanguin-

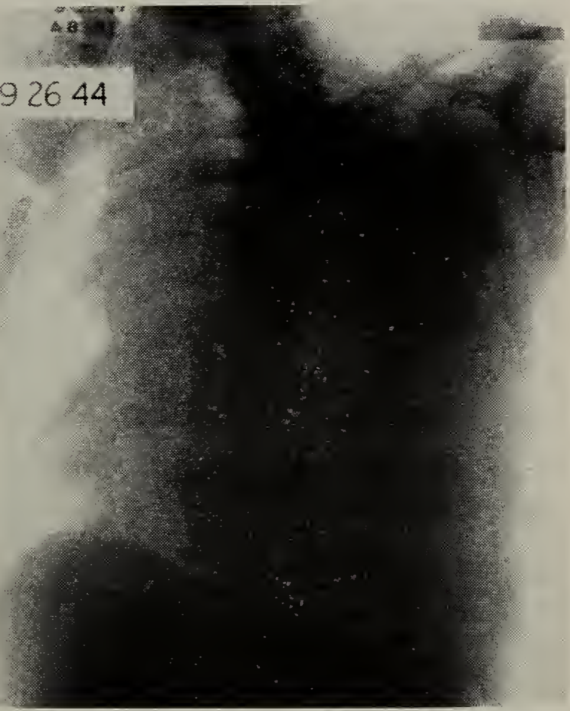

Figure 4. Esophagram in left anterior oblique with anterior displacement of distal ⅔ of esophagus with complete opacity in left thoracic cage and mediastinal mass.

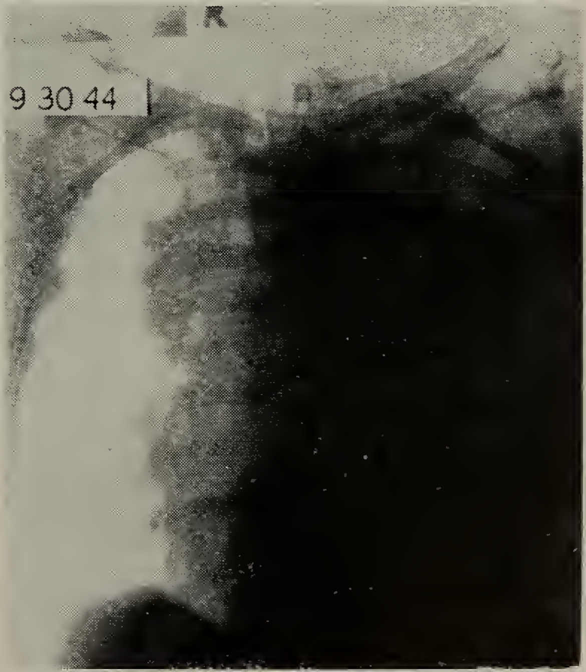

Figure 5. Potter-Bucky diaphragm showing possible obstruction to left main bronchus.

ous, acute, left, secondary to the neoplasm, were made.

Patient was transferred to an Army General Hospital and while at that hospital thoracentesis and deep x-ray therapy were instituted. The patient did not show any improvement and his progress was steadily downhill. He expired on October 21, 1944, 27 days after the original admission.

The autopsy findings revealed the presence of a bronchogenic adeno-carcinoma, left, with extension to the left pleura, metastasis to the left hilar, pretracheal nodes, right lung and liver.

DISCUSSION

This case presented the following features: Slow growth of a bronchogenic hilar tumor, which remained clinically unrecognized, despite repeated chest x-rays, until metastasis and extension of the tumor made surgical intervention impossible. Suspicion of a bronchogenic carcinoma should have been aroused by the initial symptoms of chronic cough, chest pain and shortness of breath in combination with the roentgenographic findings of hilar prominence on the left in 1942, when surgical treatment of the tumor might have been successful.

The etiology of the carcinoma of the lung is unknown, though many theories have been postulated regarding its origin. The modern concept as to factors involved are: (1) A metaplasia of the bronchial epithelium as the result of previous influenza. (2) Bronchiectasis and chronic bronchitis, resulting in such a metaplasia has been observed in experimental animals. (3) Inhalation of radioactive substances is known to have caused the development of carcinoma of the lungs. Rostaki has reported that as many as 62% of the workers in the Schneeberg Radium Mines, who were followed until death, died of pulmonary carcinoma. (4) The inhalation of smoke, nicotine, pyridine bases, phenol bases and ammonia have all been shown to act as irritants. Clagett, et al(1) state that the former etiological factor of tubercle bacilli as advanced by Ewing in 1928, has been disputed. Pearl and a co-worker concluded that the infrequent development of the two lesions in the same person is apparently due to significant antagonism between the two pathologic phenomena which disappears when a tuberculous process retrogresses or heals, particularly by the fibrotic route. The inhalation of irritative gases has also been disproved as a causative factor in pulmonary carcinoma.

PATHOLOGY

A majority of the tumors occur at or adjacent to the hilus, a minority in the lung periphery. Bronchogenic hilar carcinomas are classified as either intrabronchial or extrabronchial. The intra-bronchial tumor apparently arises from bronchial mucosa and grows into the lumen of the bronchus and toward the trachea. This type produces early respiratory symptoms of cough, sputum and hemoptysis. The extrabronchial type apparently arises from the wall of the secondary, tertiary or quaternary bronchus and breaks into the wall growing along outside of and often completely around the bronchus. The first symptoms presented by this latter type of lesion are an interference with the venous return from the neck due to involvement of the superior vena cava on the right; or involvement of the sympathetic plexus or of the recurrent laryngeal nerve resulting in a recurrence in a left Horners' syndrome or paralysis of the left vocal cord. Rienhoff(2) in a recent comprehensive review finds that the cells comprising the tumor may be the flat and squamous cell carcinoma or adenocarcinoma; the latter type is pleomorphic.

The tumor may metastasize by one of four means: (1) Direct extension. (2) Through the lymphatics. (3) Through the blood stream. (4) By bronchial embolism. The regional lymph nodes, bronchial nodes, supraclavicular nodes, axillary nodes, liver, pleura, pericardium, the contra-lateral lung, osseous tissue, brain and multiple areas in skin and subcutaneous tissue are the areas of metastasis.

SYMPTOMATOLOGY

Cough, hemoptysis, pain in chest, loss of weight, a sudden desire to breathe in deep breaths are symptoms which should attract the attention of the clinician and raise the possibility of pulmonic malignancy.

In a nation of heavy cigarette smokers, in which the population supplying the majority of patients breathes the polluted atmosphere of cities, cough is almost universal and is due mainly to an unknown non-specific irritation of the respiratory tree. An important point about coughing that should make one suspicious of the presence of an intrabronchial growth is the departure from usual for any individual. If in an adult "chronic cougher" the type of cough changes to a spasmodic productive or nocturnal type, or again if a person who has heretofore coughed infrequently, suddenly begins to be annoyed by a hacking cough day and night, attention should be focused on the bronchial tree and the presence of a bronchial neoplasm should be suspected. The development of a cough or changes in the character of coughing can portend an extremely serious condition. Until we become acutely aware of the serious significance of this sign, the opportunity for early and satisfactory treatment of pulmonic neoplasms will be denied many patients.

Hemoptysis varying from a streaking to an expectoration of copious amounts of blood is an important symptom of pulmonic malignancy. Copious hemoptysis is usually associated with adenocarcinoma of the intrabronchial type and if tuberculosis and bronchiectasis are excluded by x-ray and sputum, it is the responsibility of the physician to disprove the presence of carcinoma.

Pain arising from an intrabronchial neoplasm must be differentiated from the pain due to direct invasion of the contiguous structures. Pain arising from the lung itself is not associated with the respiratory cycle, as is the pain of pleuritis. It is most often described by the patient as a constant dull ache deep in the chest, and is the result of pressure on the bronchial wall. A persistent pain in the absence of an inflammatory disease or history of aspiration of a foreign body should always lead to a careful investigation of the respiratory tract. Pain down the arm or in the chest wall, characteristically found in the so-called "superior sulcus or Pancoast tumor" as a rule is due to the direct invasion of the ribs or brachial plexus or both.

The loss of weight in cases of pulmonary carcinoma is hard to explain but is due in part to the coughing, loss of appetite, hemoptysis, sputum and worry. Patients with pulmonary malignancy complain of a sudden desire to breathe in deep breaths, which is not exactly similar to air hunger, but approximates this condition. It is paroxsymal in time and the mechanism is difficult to explain. The hyperpnea possibly may be caused by a plug of mucus, occluding a secondary or tertiary bronchus already partically plugged by an intrabronchial neoplasm, the bronchopulmonary segment of the lung to which the occluded bronchus is a tributary, thus becoming the site of an obstructive emphysema. Reflex disturbances in the rate and amplitude are thus set up. With the expulsion of the mucus plug the respiratory rate returns to normal. These changes should excite one's curiosity and warrant further investigation. As a result of plugging of the secondary and tertiary bronchus, by the new growth, peripheral to the point and eventually an infection of this bronchial pulmonary segment results in attacks of pneumonitis occuring at any time of the year with no tendency toward seasonal incidence, with atypical physical signs. Repeated bouts associated with fever of an unexplained origin may be followed by an abscess or bronchiectasis. With a reminder by Steiner(3) that 5 to 10 per cent of all deaths from cancer are due to primary bronchogenic, it behooves each physician to pay more attention to patients with complaints of cough, hemoptysis, pain in chest, loss of weight, a sudden desire to breath in deep breath, and unidentified densities of chest film.

DIAGNOSIS

Two very valuable aids in making the diagnosis are the roentgenogram and the bronchoscope. One should suspect bronchogenic carcinoma in any departure from the normal x-ray plate of the chest, in which this departure is not in every way characteristic of one of the common lesions of the lung. An infiltrating hilar shadow in a patient past middle life, associated with cough, hemoptysis in the absence of tubercle bacilli in the sputum, almost certainly indicates bronchogenic carcinoma. Most carcinomas have their origin near the hilus. Bronchography is useful to reveal an occlusion of the bronchus by a small growth which does not produce a shadow in the x-ray. The rat-tail deformity is a significant finding.

Bronchoscopy aids in detecting the lesions by means of direct vision and biopsy. Even in cases in which the lesion is out of sight of the bronchoscope, fixation or deformity or both due to pressure on any visible portion of the bronchus creates the suspicion of a possible tumor. The presence of blood or purulent discharge from the bronchi may serve as a lead. In Ochsners' series, 75 per cent of the cases had a positive biopsy finding. In Graham's reported series, 70 to 80 per cent had positive biopsies. Aspiration biopsy is condemned because of the spread of cancer cells along the path of the withdrawn cannula of the needle.

TREATMENT

The treatment of bronchogenic carcinoma is surgical. The first successful surgical treatment was performed by Dr. Evarts Graham in 1933. The bronchogenic carcinoma is peculiarly resistant to irradiation therapy. Graham[4] expresses doubt that a single authentic case has been successfully treated by irradiation. Pneumonectomy is the procedure of choice. Mortality has been reduced from 55 to 27 per cent reported in 83 cases by Graham since 1939. Graham states that in the last 33 consecutive cases there were only 5 deaths, the mortality being 14.8 per cent. Claggett and Bundly of the Mayo Clinic stress the importance of proper preoperative care, the use of penicillin and the sulfonamides both preoperatively and postoperatively. Adequate and liberal use of whole blood, plus oxygen is recommended postoperatively. Cyclopropane is the anesthesia of choice. Contraindications to total pneumonectomy: 1. The presence of bloody pleural fluid, this being evidence that the visceral pleura and, in all probability, the parietal pleura has been invaded by the growth. 2. Paralysis of the corresponding half of the diaphragm which is readily determined by fluroscopic examination, since this is evidence of an invasion of the phrenic nerve which precludes success. 3. Paralysis of the left vocal cord of the left sided bronchogenic carcinoma. This denotes an invasion of the left recurrent laryngeal nerve as it passes beneath the arch of the aorta and indicates that the growth is already so extensive as to preclude successful operation. 4. Severe pain in the throacic wall or down the arm, as this presents general evidence of an involvement of the intercostal nerves or of the brachial plexus. 5. Bronchoscopic evidence of extension of the tumor into the trachea; a firm fixation of the hilus is an unfavorable sign. 6. Presence of distant metastases. 7. Advanced age of the patient; this is most important from a standpoint of operability.

SUMMARY

A case of primary bronchogenic carcinoma is presented with several interesting features which showed relentless progress until time of final admission when surgery was untenable. Present day concepts of etiology, clinical course, diagnostic and therapeutic procedures have been discussed.

BIBLIOGRAPHY

1. Clagett and Brindley: "Bronchogenic Carcinoma." Surgical Clinics of North America, Vol. 24, No. 4, pp. 839-851, August, 1944.

2. William F. Rienhoff: "Present Status of Surgical Treatment of Primary Carcinoma of Lung." Journal of American Medical Association, Vol. 126, No. 18, pp. 1123-1129, December 30, 1944.

3. Paul E. Steiner: "Incidence of Primary Carcinoma of the Lung with Special Reference to Its Increase." Archives of Pathology, Vol. 37, No. 3, pp. 185-196, March, 1944.

4. Evarts A. Graham: "Modern Surgical Treatment of Bronchogenic Carcinoma." Surgical Clinics of North America, Vol. 24, No. 5, pp. 1100-1107, October, 1944.

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SULFONAMIDES CUT INFLUENZAL MENINGITIS MORTALITY RATES

The sulfonamides are gradually bringing about a reduction in the death rate among infants and young children from influenzal meningitis. In the February 9 issue of The Journal of the American Medical Association three Baltimore physicians tell how they cured 24 of their 28 patients suffering from this disease.

Margaret H. D. Smith, M.D., Paul E. Wilson, Sc.D., M.D., and Horace L. Hodes, M.D., from the Sydeham Hospital, Baltimore City Health Department, and the Department of Pediatrics, the Johns Hopkins University, say that early diagnosis and intensive early treatment, using both sulfonamides and rabbit serum, tend to reduce mortality in this disease.

Influenzal meningitis is an inflammation of the meningeal membrane which forms the tender lining of the spinal cord. Diagnosis is made by finding the responsible bacilli in the spinal fluid, usually in very large numbers.

Treatment consists of the patient receiving injections into the veins of the sodium salt of one of the sulfonamides and at the same time being given sulfonamides by mouth. A rabbit antibody serum is also given.

The authors report that 12 of their patients showed reaction to the rabbit serum, adding that possibly this is due to the fact that the "serum is less completely purified than certain others in common use; (therefore) serum reactions are relatively frequent."

The doctors say that "we wish to stress the frequency with which we encountered serum reactions, not because they militate against the use of the serum but because they enforce care in its administration and frequently provide the explanation for fever, malaise and rash occurring late in the course of the disease when the patient was thought to have recovered. Also these reactions in many cases prolong convalescence."

The study was begun in January 1941. The seasonal incidence of this infection occurred in November, December and January rather than in the late winter and early spring months, when other respiratory diseases are most prevalent.

The Response of the Physician to Regimentation*

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Omaha, Nebraska

When President Truman concluded the reading of his message to Congress November 19, 1945, calling for the enactment of legislation that would impose upon the people of our nation a system of so-called "Health Insurance," he stated, "this is not socialized medicine."

Shortly thereafter, Senator Wagner of New York introduced in the senate a modification of the notorious Wagner-Murray-Dingle Bill. In his introductory remarks, Senator Wagner stated that his bill did not contemplate and was not calling for the inauguration of a system of socialized medicine.

Such pronouncements emanating from the highest sources of our national government causes anyone interested in the subject, to not only "stop, look, and listen," but to do a little thinking. Perhaps these proposed changes in our American way of life are not "Socialized Medicine." It may be that the politicians **have** something there that demands a little further study and analysis. Some individuals have a way of bandying words and phrases to bring about a meaning suitable for the required purpose—and vice versa. Just what the motive may be is not quite clear in this instance, unless it be that the proponents of this measure have a fear of anything that has the term "socialism" connected with it. Be that as it may, no other term quite so well expresses the subject, and I see no good reason why even we of the medical profession should attempt to dodge, or run away, from it. I make this statement because of the fact that we, at the present time, according to the strictest interpretation of the term are advocating and sponsoring a system of socialized medicine, under the name of "Prepayment Sickness Insurance."

The antithesis of Socialism is Capitalism. The prime objective of the Socialist's cause is levelling or evening the distribution of wealth; of placing everyone on a par insofar as opportunity and worldly possessions are concerned; of making possible the realization of all temporal things regardless of the effort required to obtain them. I grant this is a Utopian idea, but it would appear that anything is socialized to a degree when the strong must carry the weak, the rich maintain the poor, the well aid the sick. Therefore, medicine becomes socialized to that extent when the well of a group become taxed to take care of the sick of the same group.

It is not this feature of the proposed program to which the medical profession finds objection. Since the specter of National Health Insurance first loomed on the horizon, the medical profession has advocated the establishment of a system of voluntary prepaid sickness insurance.

Here, I would call your attention to statements which all of you have observed many times in the newspapers and national periodicals during the last two decades. That is, the medical profession is opposed to health insurance. Nothing could be further from the truth. These statements are nothing but bits of socialistic propaganda, written by socialist leaders in the field, for the express purpose of preparing the public mind for the acceptance of a system of compulsory sickness insurance to be foisted upon the people at some later date.

No, the medical profession has never been opposed to prepaid medical insurance in any form! Only within the last few years, when by force of circumstance, have its members been compelled to assume the role of insurance salesmen in order to preserve the much prized heritage of a noble profession. And may it be said that we are able to find men of ability among our ranks who are not too busy to give time, effort, thinking and planning on the subject, to the end that the answer to this perplexing question now appears to be well on the way.

The response or reaction of the physician to the proposed national planning for medical care has been varied and somewhat spasmodic insofar as the individual physician is concerned. It ranges from the fellow who knows little or nothing about what is going on about him in the medical economic field, and by his action many times would appear to care less, to a comparative few who attempt to keep themselves informed and "carry the ball" for the rest of us. In between, we have those who indulge in the regular staff room discussions, many times at some length, but seldom if ever does any positive action emanate from this source. I am convinced that much misinformation proceeds from these sources, due to the fact that the discussors are not fully informed. However, such discussions no doubt serve some useful purpose by arousing somewhat of an indignant feeling in the mind of some physician listeners to the point where they will assume the attitude of the Irishman, who said, "I don't know what we're fighting for, but we're going to fight 'till we get it."

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*Read before the Omaha-Douglas County Medical Society, January 8, 1946. Prepared in December, 1945, prior to the action of the Council on Medical Services and Board of Trustees at its February, 1946, meeting.

I appreciate the fact that not everyone is so constituted or able to take the active part that others may—such as our members who worked out and set in operation our Nebraska Surgical Plan. What I have said is not meant to malign anyone or to extol the virtues of anyone, but rather to point out that this is a job for all of us; and that we who do not happen to be the one who is doing the work at the time, should be upholding the hands and giving unqualified support to those who are, at every opportunity. This is no time to be differing among ourselves.

From the standpoint of a scientific organization, the American Medical Association is recognized by every physician as the greatest medical organization in the world and on a par with, if not excelling other scientific organizations. As a politico-economic organization as much cannot be said, and every physician recognizes this fact also. But this should not be sufficient cause for some of the condemnations that have been brought down upon the A.M.A.—as our national organization is so frequently referred to, in an impersonal way. THE A.M.A. IS YOURS AND MINE, AND NOT AN "IT." If our local and national officials had the unqualified financial and moral support that is accorded even a teamster's union by its members, the outcome of our present dilemma should not be a question.

We have frequently heard the criticism that the A.M.A. has been derelict in not formulating and presenting plans to meet the threat of socialized medicine; and much has been said as to why we were so slow in getting under way. Accusations have actually been made that we had our Quisling's who were aiding and abetting the cause of socialized medicine, and who were just waiting to take over when regimentation came. Such statements can only proceed from the malicious malcontents and rumor mongers and serve no good purpose other than to peg the authors for future reference.

You may recall that a special session of the A.M.A. House of Delegates was called in 1938 at a time when socialized medicine bills were first introduced in the National Congress. A three-day executive session was held during which time every phase of the question was fully discussed and considered by reference committees. These committees were composed of outstanding men noted for their thinking ability along medico-economic lines. Resolutions dealing with the question were presented from every section of the country. These were debated before these committees. The hearings on two occasions lasted until after two o'clock in the morning. I mention this only to indicate the seriousness with which their job was undertaken. The final result was the so-called A.M.A. Platform, which enunciated the principles of American Medicine as laid down by the House of Delegates, the policy making body of the A.M.A. To these principles we have tenaciously clung.

In the main these principles do not conflict with the prime objectives sought by the proposals contained in the present proposed legislation. The principal objections are:

1. It is compulsory — thereby taking away the rights of the individual.

2. Determination of eligibility for service is set in Washington;

3. Wage brackets are likewise determined in Washington;

4. No provision is made for the care of the indigent;

5. Last and greatest of all is the method of administration, which amounts to regimentation of the medical profession, as well the recipients of the service. On this latter question, medical men who have spent their professional life in the private practice of medicine are agreed. We want no part of it!

I have taken occasion to discuss the question with many of the medical men, as well as soldiers who have returned from the late war, and much to my satisfaction, I find the soldiers as well as medical men opposed to regimentation. While the soldier readily admits that a wonderful job was done in saving lives and rehabilitating the wounded, he still has back in his head the idea that when he answers sick call, he would prefer to go to a doctor of his own choosing. I believe if every one of us would take occasion to discuss this fact with the returning veterans and point out that regimented medicine of this sort is now being proposed on a national scale, we will find many ready converts.

The people in the rural areas should become a most valuable ally in the defeat of this un-American plan, which proposes a tax on the farmer whose income is more than $700 per year. Again it will be noted that no provision is made for those—and it is a large group—who are just self-sustaining or are medically indigent. We should also take occasion to discuss this question with our rural patients, and call their attention to the fact that the C.I.O. and A.F. of L. have given their whole-hearted endorsement to the Federalization of medical care and are already at work to further the cause of compulsory health insurance.

Mention has been previously made of the special session of the House of Delegates in 1938, and the so-called platform that was adopted for American medicine at that time. To recall to your mind some of the principal points contained therein as they refer to the question at hand:

1. The care of the public health and the provision of medical service to the sick is primarily a local responsibility.
2. That provision should be made for the medical care of the indigent and the medically indigent with local determination of needs and local control of administration.
3. That existing medical and hospital facilities be utilized to the utmost.
4. That the continued private practice of medicine be maintained, subject to such changes as might be found necessary to maintain the high quality of medical services and to increase their availability.
5. That the Federal Government be called upon to participate only at state levels, by making available to states such funds as were actually needed for the prevention of disease, the promotion of health and the care of the sick. These funds to be available only when proof of such need is shown.

I believe you will agree that these principles were sound and still remain sound. Their operation would be good medicine for the patient and the doctor alike. Under such a system the indigent and the medically indigent would be amply cared for and their medical bills would be paid. No such intimation is contained in any of the plans that are now before Congress.

For many years, in fact since 1917, in the state of Washington, plans for prepayment sickness insurance have been in operation. These plans developed rather slowly and it has been felt by the governing bodies of the A.M.A. that sufficient actuarial data had not been accumulated to justify the recommendation of a national plan that would meet the needs of the various communities in all the different states. Local, state and county medical societies were advised to continue the study and work toward the development of plans that would meet these local needs. Gradually more plans were developed and finally the Michigan State Medical Society inaugurated a state-wide plan, which after a sorrowful experience in its earlier years has evolved a plan that as actuarily sound and is working to the satisfaction of everyone concerned. Other states are rapidly working to this end.

At the annual meeting of the A.M.A. House of Delegates in 1943 a new agency known as the Council on Medical Service and Public Relations was created. While plans for its operation were not fully developed at that time, its function in a general way was to cooperate with the Bureau of Medical Economics and the Bureau of Legal Medicine and Legislation in analyzing proposed legislation affecting medical service and establish a Bureau of Information in Washington, D. C. Through this Council state medical organizations and local legislative committees were to be advised as to the effects of proposed national legislation. They were also to study existing medical service plans with a view of correlating and coordinating these plans to the end that a National Medical Service plan might be formulated. They were also empowered and instructed to employ a full-time Director of Insurance.

The Council immediately set to work, and after several meetings reported the result of their deliberations to the 1944 annual meeting of the House of Delegates. Obviously no definite form had yet taken place in the way of a specific plan. However, they were showing progress. The Washington office has been established, but no Insurance Director has been employed. Their work continued and a few months ago the Council requested that each State Medical Association send two delegates to their meeting to be held in Chicago, October, 1945. Dr. Charles McMartin and Dr. A. J. Offerman represented Nebraska. The transactions of this meeting and a subsequent meeting of the same group which met a month later, just preceding the last meeting of the House of Delegates, resulted in the evolution of specific plans for setting up a National Prepayment Sickness Insurance System. The following resolution, the outgrowth of these conferences, was adopted:

> "Resolved, that the House of Delegates take immediate steps to encourage the development of a national voluntary prepayment medical care plan: for the purpose of covering areas not now served by plans, for the purpose of assisting in the enrollment in local plans of national enrollment groups and to serve until such time as all states have their own plans; and be it further
>
> "Resolved, that the American Medical Association's Council on Medical Service and Public Relations be instructed by the House of Delegates to take immediate steps to:
>
> "1. Coordinate the activities of all prepayment medical care plans now in operation.
>
> "2. Foster the development of such plans in those areas where there are none.
>
> "3. Educate physicians and the public as to the functions of voluntary prepayment plans and the need for supporting them; and be it further
>
> "Resolved, that the officers and committees of every state medical society be urged by the House of Delegates to secure prompt action by their state societies in inaugurating new or increasing the benefits of existing prepayment medical programs in every state."

The exact form of the National Plan has not been fully developed. The Council on Medical Service and Public Relations is conferring with some of the men who have developed some of the older and larger medical Service Plans that are now operating, who together with qualified insurance counsellors will formulate the National Plan.

It is thought that the plan will shape up as a National Casualty Corporation, operated on a non-profit basis, to compliment and cooperate with all local and state Medical Society sponsored Medical Plans which are now operating in twenty-six states.

The details of organization of the proposed National Casualty Corporation will not be reviewed further than to state that it would be financed by loans from the various State Medical Organizations and existing Medical and Blue Cross Plans.

At the time of the Chicago meeting commitments from the two latter organizations toward sponsoring such a plan totaled $200,000. It is expected that each State Medical Society will readily make its proportionate contribution.

The following proposed principles are now under consideration by the Council of Medical Service and Public Relations and its advisers in setting up the National Organization:

1. A national casualty corporation shall be constituted to engage in business in all states, but conducted on a non-profit basis.
2. The purpose of such national casualty corporation to be complemental to and cooperative with all medical plans sponsored by State and County Medical Societies.
3. The control of such national casualty corporation to be within the hands of the medical profession at all times.
4. That such national casualty corporation shall operate in close cooperation with the National Enrollment Bureau of Blue Cross—in the coverage of national employer business, and for the economy of acquisition costs.
5. That at least in the beginning such National Casualty Corporation shall limit its coverage to indemnity type of contract for surgical operations and obstetrics. Such a contract as can in fact compete with the conventional "health and accident" policy.
6. That such national casualty corporation, after paying off its founding financial obligations, shall ultimately become a service agency to the various local Medical Plans.

I have neglected to mention the outstanding service that has been rendered by the National Physicians' Committee in arousing public interest and keeping the public informed on this vital question. They have also been quite effective in establishing proper public relations with big business organizations.

At a meeting of the Board of Trustees of the National Physicians' Committee November 20 and 21, 1943, a resolution was adopted calling for the expenditure of funds to:

1. Encourage the medical profession to active participation in the development of plans and the more general use of the existing facilities for easy payment of insurance against unusual or prolonged illness.

2. To educate the people to the importance, nature and value of prepayment facilities within the framework of principles approved by the medical profession now available for meeting the costs of unusual illness.

The worthwhile accomplishments of this organization for the cause of medicine and the maintaining of the American way of life cannot be estimated by any known system of values. The scope of their activities is constantly increasing and becoming more effective as time goes on. In truth they have been the medical profession's first line of defense, and are deserving of the continued financial support of every physician. By contributing to the funds of this organization, you too can have a part in preserving the private practice of medicine.

Much speculation exists in the minds of physicians as to what the future holds for their profession. If every physician became an active worker for the cause, much of this doubt would be easily dispelled. As previously stated, too few are really interested. The meager percentage of attendance at regular medical meetings by some of our leading specialists bespeaks their lack of interest in the general welfare of medicine. The average physician knows too little about the economic ills of medicine. Some means should be devised to awaken a deeper interest along this line. We are not without hope. It was with a great deal of satisfaction that at the meeting of the A.M.A. House of Delegates in December our State President, the President Elect, one of the Trustees, the Editor, Executive Secretary and the Chairman of our local society Economics Committee attended nearly every session. More of our members should avail themselves of such opportunities and become better acquainted with the workings of organized medicine, and a greater interest be aroused in its welfare.

I am convinced that the private practice of medicine will endure just as long as the individual physician chooses to remain a free agent. It is high time that we dedicate ourselves to such a policy.

* * *

NEW USE FOR OLD DRUG IN RELIEF OF MUSCULAR SPASMS

An old drug, physostigmine, has been put to a new use by three doctors who find that it is effective in relieving muscle spasms and some of the pain in rheumatoid arthritis.

Abraham Cohen, M.D., and Philip Trommer, M.D., both of Philadelphia, and Joel Goldman, M.D., of Lewiston, Pennsylvania, writing in the February 2 issue of The Journal of the American Medical Association reject their previous recommendation of neostigmine, a drug which was successfully used in the treatment of muscle spasm in poliomyelitis. They found this drug impractical because of the expense involved when used in large quantities. Physostigmine was selected for study because it is closely related in action to the former drug.

Rheumatoid arthritis is a chronic disease characterized by stiffness and soreness of the muscles and swelling of the joints. The swelling is due to the collection of fluid in the joint space and the thickening of the tissues surrounding joints. Loss of muscle strength, decrease in muscle size and limitation of muscle endurance in the region of the involved joints occur in various degrees and may develop rapidly. It is of unknown origin, affecting many organs and systems of the body. The muscle spasms have been a problem because they persist even though the arthritic process is in an arrested stage. Muscle spasm results in limitation of motion, deformities, weakness, fatigue and pain on pressure or stretching of the affected part.

The authors conducted their study in the special arthritis wards of the Philadelphia General Hospital. From their observations they conclude that physostigmine is sucessful in giving immediate relief from muscle spasms and for preventing deformities and moreover it is an inexpensive form of treatment.

In explaining the purpose of their study, the authors state that "the incidence of rheumatoid arthritis is so great and the various forms of therapy so numerous that it is our purpose to reduce the treatment of this disease to the simplest denominator. Any form of therapy that tends to minimize deformities should be considered worthy of consideration. Our object in this writing is to (1) prevent deformities in rheumatoid arthritis, (2) lessen the severity of deformities already formed, (3) simplify the drug used, (4) lessen the cost to the patient and (5) relieve pain."

In conclusion the authors found that there were fewer undesirable reactions with physostigmine than with neostigmine. They say: "The lesser frequency of complaints with physostigmine made for better patient cooperation . . . It is because of this and for reasons aforementioned that we have substituted physostigmine for neostigmine in all our studies. As will be noted, physostigmine bears out our original premise in respect to clinical improvement. It relieves muscle spasm and therefore relieves pain in many instances. The relief is common to a large portion of cases and is frequently enscountered within 15 to 30 minutes after injection."

Nebraska Surgical Plan—Its Accomplishments and Its Aims*

A. J. OFFERMAN, M.D.
President Nebraska Surgical Plan
Omaha, Nebraska

First, I would like to express my appreciation for the opportunity to participate in this program and to talk with you about Nebraska Surgical Plan, its accomplishments and its aims.

I am very gratified to be able to tell you that Nebraska Surgical Plan is a success story and its future development and expansion are assured. We know that we are fundamentally right, we have given excellent service to our 5600 enrollees in our first year of operation. We have learned from this first year, that we are actuarially sound. We have achieved a fine, efficient functioning organization. We are closely integrated with the Blue Cross Group. Blue Cross and Nebraska Surgical Plan have much in common and naturally supplement each other.

We have come a long way in the past 18 months.

On June 4, 1944, the Omaha Douglas County Medical Society approved the Nebraska Surgical Plan. On November 1, 1944, the Plan was placed in operation, and on May 8, 1945, the Nebraska State Medical Association at a meeting of its House of Delegates unanimously approved the Nebraska Surgical Plan for state-wide distribution.

On December 5, 1945, the House of Delegates of the American Medical Association went on record with the following resolution:

"That, the American Medical Association, take immediate steps to develop a National Plan, for the purpose of covering areas, not now served by Plans, and for the purpose of assisting in the enrollment in local plans of National enrollment groups, and to serve until such time as all states have their own plan. To co-ordinate the activities of all prepayment plans in those areas where none now exists."

So, we have progressed from County to state to National level in eighteen months.

The Nebraska Surgical Plan is available to employed groups and their dependents. Surgical Plan now offers five types of medical care, namely: Surgical, Obstetrical, Pathological, X-ray and Anaesthesia benefits. The Plan is an answer to the needs of the lower income groups, and is particularly slanted to the lower income groups, to underwrite the costs, in part, or, in full for unusual or emergency illnesses. The Plan indemnifies the employed individual and all of his dependents, whether, they number three or ten. It is the opinion of the Directors, that this plan will extend more and better medical care to many persons who find difficulty in meeting bills for unusual or emergency illnesses. It also provides benefits for x-ray diagnosis in accident cases and for radiation treatments, it provides for treatment of certain minor operative procedures outside of the hospital, in the doctor's offices. But, in the greatest majority of the cases, the Plan is developed around the care of hospitalized patients.

This Plan must have the active interest and co-operation of the entire membership of this Society and of the State Medical Association if it is to succeed. Passive acceptance will not do; active participation is absolutely necessary. The members of this Society must now recognize their opportunity and accept their responsibility, if this Plan is to expand to its fullest possibilities of service to our patients.

The members of this Society and of the Nebraska State Medical Association must inform themselves of the provisions stipulated in the contract of Nebraska Surgical Plan, particularly, they must understand that there is a waiting period of six months for most of the elective operations. These waiting periods are necessary at this time to insure our financial stability and when a sufficient amount of surplus has been accumulated then, these waiting periods, will be entirely eliminated.

NEBRASKA SURGICAL PLAN
SERVICES RENDERED TO MEMBERS
January 1, 1945 to January 1, 1946

Number of Claims Paid	143
Number of Services Rendered	163
Females	79
Males	64

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*Read before the Omaha-Douglas County Medical Society, January 8, 1946.

Types of Services:
(Services Rendered 163)

X-ray, diagnostic	19.6%
Tonsillectomies	18.4%
Minor surgery	15.3%
Appendectomies	14.7%
Orthopedic	8.6%
General surgery	8.0%
Gynecology	2.5%
Urology	2.5%
Herniotomies	2.0%
Eye diseases	1.8%
Transfusions	1.8%
Cholecystectomies	1.2%
Hemorrhoidectomies	1.2%
Nose and throat diseases	1.2%
Radiation therapy	1.2%

Amounts Paid to Physicians:
(Total Payments $6,088.50)

X-ray, diagnostic	4.0%
Tonsillectomies	17.2%
Minor surgery	3.0%
Appendectomies	38.0%
Orthopedic	6.7%
General surgery	9.0%
Gynecology	4.4%
Urology	3.4%
Herniotomies	4.5%
Eye diseases	0.4%
Transfusions	1.0%
Cholecystomies	4.0%
Hemorrhoidectomies	1.6%
Nose and throat disease	1. %
Radiation therapy	.75%

There have been no claims, as yet, for Maternity Services, due to the twelve-month waiting period. It is estimated that Maternity Services will amount to, approximately, 15% of the number of services and will require about 15% of the total payment in dollars.

What are our future plans for the expansion of Service?

We are contemplating the addition of IN-HOSPITAL MEDICAL CARE.

This would provide for the treatment in hospitals, of any acute illness, such as, the acute respiratory diseases, cardiorenal vascular disturbances, and other medical afflictions. For example: it is thought, that a medical illness, treated in the hospital, exclusive of the first three days, could be indemnified for the next twenty-five days for a reasonable amount, say $3.00 per day, twenty-five days would be the limit for any one person, in one year. There is an increasing demand that preventive medical services, also, be included in our schedule of benefits. It is estimated that this "IN-HOSPITAL" medical care and this preventive medical program could be supplied for an additional small increase in the assessment. Where an individual now pays 75c for Surgical Plan, his assessment would be increased 25c and he would pay $1.00 per month. A family assessment would be increased 50c and the family would pay $2.50 per month.

The control of the Nebraska Surgical Plan is always in the hands of the medical profession, through the action of the House of Delegates of the Nebraska State Medical Association. The House of Delegates has the power to name the doctors of medicine, who are to be elected to the Board of Directors.

The Board of Directors recogizes that there are imperfections in the present Certificate of Nebraska Surgical Plan, particularly, in the schedule of benefits. Studies are now under way to correct these inequalities and your advice and constructive suggestions are invited.

There is an unwritten law, or custom, in the Nebraska Surgical Plan, that any doctor of medicine, who serves as a director, or officer, cannot be paid any salary, for performing these duties.

Doctors of medicine, by voluntary action, have set up standards in Medical Education, by regulations, enacted through their National Societies and Associations. Doctors of medicine, have set up high standards of Medical Practice and Ethical Conduct, by writing Medical Practice Acts and having legislatures enact them into laws. Doctors of medicine, by sponsoring and developing prepayment medical care plans, can control the economics of the practice of medicine. The battle is now on, who will gain control of the vast fields of medical education and the practice of medicine, the politician or the physician? **There is yet time to win this battle!**

1946 is the year of decision for the medical profession in these United States.

There are two large groups of individuals who need our especial attention, namely: the low income group and the veterans group.

The low income group and the white collar class, find themselves in a difficult economic position, in these days of greatly increased costs for the necessities of life. Reliable agencies have reported that the cost of living for necessities has risen about 33%, with the result that these people will find it increasingly difficult to pay for their hospital and medical care, out of their present earnings, after they have paid for their food, shelter and clothing.

Modern, high quality medical care, has of necessity also increased in cost. Reliable surveys reveal, that the great number of people are deeply appreciative of the fine quality of medical care now available, from the physician of their choice, and that they want freedom of choice of physician in time of illness, and that they want to participate in pre-payment plans for medical services and hospital care, to pay for the costs of services of physicians and hospitals.

These low income groups are seeking Health Security and this Health Security can be provided by voluntary pre-payment plans.

Nebraska Surgical Plan was set up on an indemnity basis, because, it was the easiest, shortest, possible method, to get a pre-payment plan in operation.

There are two methods of operating pre-payment medical plans: the Indemnity Plan, and the Service Plan.

Nebraska Surgical Plan is an example of the INDEMNITY PLAN. Here the Corporation's payment is applied towards the cost of the physician's charges, and there are no special arrangements for the low income subscribers. However, the fee schedule allowances in the Nebraska Surgical Plan are adequate to fully meet the professional charges, to those in the lower income brackets. This has been our experience in Surgical Plan, in the 150 claims which have been paid to date. We believe, that in more than in 90% of the cases, the fee stipulated in the schedule of indemnities has been accepted by the attending physicians as payment in full for services rendered.

The SERVICE PLAN, is the method, under which the participating physicians have agreed to accept the corporations schedule of benefits as payment in full for the services provided. Service benefits are generally restricted to the enrollees in the lower income brackets. These income limits are based on gross income and the number of dependents. A participant, whose income is in excess of the stipulated limit, may be charged an additional amount by the physician. Inasmuch as Nebraska Surgical Plan is now in practice working on a service basis, it would be a tremendous advantage in the enrollment of these low income groups if our representative could assure the members of the low income groups, that the schedule of indemnities would be accepted by the members of this Society as payment in full, for services rendered. It would give them the Health Security which they so earnestly desire. The Certificate of Nebraska Surgical Plan is difficult to sell, under our present method of selling. It is necessary that we enroll a high percentage of the low income groups quickly, for time is definitely a factor.

On Dec. 2, 1945, just a month ago, I had the opportunity to hear Mr. Julius Altmeyer talk very earnestly in favor of the Compulsory Health Insurance. Mr. Altmeyer, is the Director of Social Security Agency. He and his associates, Isidor Falk, Micheal Davis and many others, are sincerely convinced that the passage of a law is all that is necessary to bring good medical care to the American people. They are convinced that this law must be on a compulsory basis.

We who are advocating Voluntary Pre-payment Medical Care Plans, must effect enrollment of large percentages of the low income groups, if we are to prove our contention that good medical care can be brought to these groups on a Voluntary basis.

We are convinced that the only way we can achieve large enrollment percentages in these lower income groups is to offer this Voluntary Service Plan to these low income groups. If we can agree among ourselves to do this, we will give Nebraska Surgical Plan a tremendous advantage over the commercial carriers, who are very active in competition with us in the enrollment of groups, particularly large groups. If we can agree among ourselves, to enact this Voluntary Service Plan, we can offer to these low income groups a Service that an Insurance Company cannot offer. An Insurance Company can only supply a certain number of dollars, we can supply a definite amount of Medical Service, and that is what our patients want, and that is the Health Security they desire.

The experience in Michigan, Missouri, and Colorado, conclusively proves that the dollar income to the Medical profession, from these low income groups, is greater under the Service Plan, than it is under the present method of practice without pre-payment plan.

Good medical care must have three qualities—it must be personal, it must be voluntary, and it must have incentive. And we think our Voluntary Pre-payment Plans will make it possible for medical care to have these three highly necessary qualities.

Public relations, is a very important topic today, and the members of the medical profession should recognize the fact, that good public relations are extraordinarily important at this time.

The public relations between the individual physician and his patient, are excellent. Public relations between groups of organized medicine and the greatest mass of the people, are in need of much improvement. Much considerate thought and good advice from public relations experts should be obtained. There are several means available to improve our public relations, namely: through County Societies at a local level, public meeting sponsored by the County's Societies, where matters of Health and Health topics and even Medical Economics would be properly presented by representatives of the Medical Societies and the Hospital Associations; Radio programs with transcriptions, and Radio talks sponsored by the Medical Society; proper contacts with local newspapers in order that the views of organized medicine may be properly presented to the public and last and most important—the rapid development of Voluntary Pre-payment Medical Care Plans; for in truth, good public relations consists, not in the utterance of words, but in the performance of good deeds well done.

* * *

MORE EDUCATION IS NECESSARY IN CANCER FIGHT

In an editorial entitled "The Battle Against Cancer," Editor Morris Fishbein, M.D., says in the current issue of Hygeia, health magazine of the American Medical Association, that "among the most conspicuous problems in the control of cancer is the difficulty of getting the patient to seek medical care soon enough to permit medicine to do for him all that can be done."

Continuing, the editorial says:

"In many instances patients frequently delay because of ignorance or fear in seeking medical care. In some instances, of course, doctors fail to carry out enough scientific study to detect the presence of cancer that is not easily detectable. This means that more and more education is needed in regard to the importance of early recognition and treatment of cancer. If people would only try to call attention to suggestive symptoms as soon as they are noticed and if there were available everywhere opportunities for immediate consultation with physicians who had access to the necessary aids for diagnosis, the number of needless deaths from cancer would be greatly decreased.

"In Great Britain, under the British Cancer Act of 1939, the country is divided into regions in which there are available diagnostic units, treatment centers and facilities for the care of advanced cases. A similar program is now in process of development for the United States with the aid of funds to be provided by the American Cancer Society. Both the American Medical Association and the American College of Surgeons are cooperating in the development of principles and practices which should make this plan effective.

"Regardless, however, of the facilities and the medical advice that are available, these can do little to reduce the total number of unnecessary deaths unless people learn to overcome their fears and to seek the aid of these facilities at the earliest possible moment. In Sweden under a government system there are available to the people free diagnostic services and free transportation to government clinics with easy access to surgery and radium. Nevertheless, these facilities do not seem to have reduced materially either the deaths from cancer or the death rates. In a personal inquiry made to the physician in charge of one of the great cancer centers — the Radium Hemmet in Stockholm — he said that the public still fears cancer so greatly as to postpone the visit to the general practitioner in rural areas, who is in the vast majority of cases the first physician consulted.

"In the United States cancer of the breast caused 16,140 deaths in 1943; cancer of the uterus caused 16,968 deaths; cancer of the larynx caused 1,490 deaths; cancer of the tongue, 1,231 deaths; and cancer of the lips, 661 deaths. With the knowledge now available many of these deaths could have been prevented. These forms of cancer are in the majority of instances curable in their early stages. The figures cited indicate great possibilities if educational and medical facilities can be utilized to the utmost in getting the patient to the doctor as soon as possible and making available to the doctor modern methods for diagnosis and treatment."

The Nebraska State Medical Journal

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Vol. 31 March No. 3

THE PLATFORM OF THE AMERICAN MEDICAL ASSOCIATION

The American Medical Association advocates:

1. The establishment of an agency of federal government under which shall be coordinated and administered all medical and health functions of the federal government exclusive of those of the Army and Navy.
2. The allotment of such funds as the Congress may make available to any state in actual need for the prevention of disease, the promotion of health and the care of the sick on proof of such need.
3. The principle that the care of the public health and the provision of medical service to the sick is primarily a local responsibility.
4. The development of a mechanism for meeting the needs of expansion of preventive medical services with local determination of needs and local control of administration.
5. The extension of medical care for the indigent and the medically indigent with local determination of needs and local control of administration.
6. In the extension of medical services to all the people, the utmost utilization of qualified medical and hospital facilities already established.
7. The continued development of the private practice of medicine, subject to such changes as may be necessary to maintain the quality of medical services and to increase their availability.
8. Expansion of public health and medical services consistent with the American system of democracy.

ANNOUNCEMENTS

Postgraduate Course in Diseases of the Chest will be given under the auspices of the Illinois Chapter of the American College of Chest Physicians at Michael Reese Hospital, Chicago, Illinois, during the week April 1st to 6th, inclusive.

Doctors may elect to follow this week's formal course with practical instruction in the fields of thoracic surgery, bronchoscopy, pneumothorax, bronchography, and other methods and technics in the diagnosis and treatment of pulmonary disease.

Further information may be secured at the office of the American College of Chest Physicians, 500 North Dearborn Street, Chicago 10, Illinois.

NEWS and VIEWS

Dr. J. E. M. Thomson of Lincoln is the new president of the American Academy of Orthopedic Surgeons. Dr. Thomson took over this office at the 14th annual meeting of the Academy in Chicago in January.

Dr. Ernest T. Manning of Omaha was elected chairman of the Nebraska State Board of Medical Examiners, succeeding Dr. Earle G. Johnson of Grand Island.

The following Nebraskans attended the early February meeting in Chicago: Drs. Roy B. Adams, George W. Covey, Harold Morgan and Mr. M. C. Smith, Lincoln; Dr. Earle Johnson of Grand Island; Drs. Roy F. Fouts, Herman M. Jahr, James F. Kelly, J. D. McCarthy, Chas. McMartin, A. J. Offerman, C. M. Wilhelmj, all of Omaha; Dr. A. O. Fasser, Fremont; Dr. C. H. Sheets, Cozad, and Dr. Geo. W. Pugsley, Jr., Bayard.

To advance and encourage research, teaching and training in the field of physical medicine—and to bring the benefits of this branch of medicine to the rehabilitation of persons maimed in war, industry or by illness—Bernard M. Baruch in 1944 made an initial grant of $1,100,000 to the Baruch Committee on Physical Medicine.

The first annual report of the Committee, prepared by the medical director, Frank H. Krusen, M.D., of the Mayo Clinic, has outlined the progress in attaining the objectives of Mr. Baruch's endowment.

Eleven medical schools shared funds in the original grants: Columbia University, $400,000; New York University, $250,000; Medical College of Virginia, $250,000; Massachusetts Institute of Technology, $50,000; University of Minnesota, $40,000; University of Southern California, $30,000; Harvard University, $25,000; University of Iowa, $15,000; University of Illinois, $15,000; Washington University, $10,000; Marquette University, $5,000; Harvard received a later special grant of $30,000 for a special fellowship program.

The American Association of Obstetricians, Gynecologists and Abdominal Surgeons Foundation announces that the annual prize contest will be conducted again this year. For information, address Dr. Jas. R. Bloss, Secretary, 418 11th Street, Huntington 1, W. Va.

PRESIDENT TRUMAN HEADS NEW NATIONAL FOUNDATION TO COMBAT ARTHRITIS

With President Harry S. Truman as its Honorary Chairman, a new national foundation to combat arthritis was announced yesterday at a special reception and conference at the Blackstone Hotel in Chicago. Mr. Louis Kranitz, St. Joseph, Missouri, Chairman of the National Campaign Committee, declared that two and one-half million dollars is the goal being sought for the establishment of the National Arthritis Research Foundation, with its main buildings to be located in Hot Springs National Park, Arkansas.

The Foundation is being established as a national and independent center for studying the causes and treatment of rheumatic diseases. The President accepted the honorary chairmanship, Mr. Kranitz explained, following a White House conference. Members of the Foundation's National Board of Sponsors who conferred with President Truman included: Senators Frank P. Briggs, Missouri, and John L. McClellan, Arkansas, Judge Richard H. Duncan, Missouri, Sidney G. Kusworm, Dayton Ohio, National Treasurer of B'nai B'rith, Congressman William F. Norrell, Arkansas, and Mr. Kranitz. The latter stated that the President had expressed his concern regarding national health and his awareness of the need for adequate research to help check the widespread effects of arthritis.

Endorsements of this national medical project from United States Surgeon General Thomas Parran and Dr. Morris Fishbein, Editor of the Journal of the American Medical Association, both sponsors of the Foundation, were read by Mr. Kranitz. He added that complete control of research will be placed in the hands of a Medical Advisory Board made up of outstanding specialists from all over the country.

BUY
U.S. SAVINGS BONDS

HOSPITAL NEWS

BURWELL: The Burwell Hospital, which the community leased from Dr. Roy Cram, is soon to reopen. Maxine Pettigrew of Lincoln will be the superintendent in charge.

CALLOWAY: An effort among some of the citizens is being made to vote bonds for a new municipal hospital.

FREMONT: Considerable discussion over the facilities and the plant of the Dodge County Hospital has appeared in the local press. What we gather, there is a need for renovation as well as new construction. According to the latest reports, plans are now being studied for constructing a new wing. The hospital board is authorized to spend ninety thousand dollars for an addition if the county supervisors approve.

NELIGH: A committee of five citizens was organized to bring about the construction of a modern hospital in Neligh. The goal is $180,000. Funds are to be raised by popular subscription.

OSHKOSH: An effort to raise $10,000 to construct an addition to the Oshkosh Hospital was started recently. This is to serve as a memorial to the veterans of World War II.

WEST POINT: According to local reports a deficiency of between fifty and sixty hospital beds exists in the West Point area. According to the same report the drive for funds for a memorial hospital reached the half way mark early in January.

SHRINERS EXPAND PROGRAM OF AIDING CRIPPLED CHILDREN

A nationwide, five-point program to expand and accelerate its fight against all crippling diseases affecting children will be set into action at once by the Shriners of North America, it was announced in New York today by William H. Woodfield, Jr., of San Francisco, Imperial Potentate.

The new program has been developed, Mr. Woodfield said, through a series of recent meetings sponsored by the Imperial Potentate and other members of the Shriners' Imperial Council; and approved by Dr. J. Albert Key of St. Louis, president of the American Orthopedic Association; member surgeons of the Association who serve as chief surgeons of the 15 Shriners' Hospitals for Crippled Children, located in various cities of the country; and W. Freeland Kendrick, chairman of the national board of trustees of the hospitals.

The five phases of the new plan are:

1. The granting of scholarships, to be known

as The Fellowships of the Shriners' Hospitals for Crippled Children, in orthopedic surgery to outstanding, qualified medical students. An initial yearly appropriation of $7,500 has been set aside. Three scholarships of $2,500 each will be made in 1946 for training in three universities, soon to be named.

2. An annual appropriation of $3,750 will be granted for scholarships in orthopedic nursing. These nurses, in turn, will instruct and give encouragement to other nurses interested in specializing in the crippled children's field.

3. The establishment of a research project to probe further the sources, methods of treatment and prevention of all crippling diseases attacking children.

"Complete plans for the establishment and operation of this research activity as yet are not finalized," Mr. Woodfield said. "As rapidly as possible, however, this highly important project will be crystalized into reality."

4. The expansion of present facilities and equipment of the 15 Shriners' hospitals now in operation and the establishment of new hospitals in other localities.

5. The establishment of convalescent homes in connection with all Shriners' hospitals as rapidly as possible. The installation of recreational and occupational therapy courses to assure continuing physical improvement and self-development after healing has been completed.

The convalescent and occupation therapy plan is already under way at the San Francisco hospital, Mr. Woodfield pointed out.

"This expansion of our efforts in the fields of prevention and cure of crippled children will be integrated closely with the 15 Shriners' hospitals," Mr. Woodfield said. "The first of these hospitals was founded 23 years ago and, to date, more than 100,000 children of underprivileged families have been healed or benefited through treatment."

The wide scope of charitable work carried on by the 15 hospitals is revealed in a statement by Mr. Kendrick that operating expenses for the current year will be in excess of $1,000,000.

The first Shriners' hospital was opened in Shreveport, La., September 16, 1922. Other hospitals are located in Minneapolis-St. Paul, Minn.; Portland, Oregon; St. Louis, Mo.; Montreal, Canada; Springfield, Mass.; Chicago; Philadelphia; Greenville, S. C.; Honolulu; Spokane; Salt Lake City; Winnipeg, Canada Lexington, Ky., and San Francisco.

GENERAL REPORT OF EXECUTIVE DIRECTOR OF NEBRASKA SURGICAL PLAN FOR 1946

After fourteen months of operation, attended by many fears and much trepidation, the progress and record of the Nebraska Surgical Plan, although not sensational, may be termed quite satisfactory. Several increases in benefits and changes in the agreement, dictated by accumulated experience, have already been made effective. These changes have benefited the member and helped the salability of our contract—an ideal combination. In the opinion of your Executive Director, only a few additional changes in our regulations, perhaps a few in our membership agreement, will be necessary in order to meet some present objections of prospects. (Financial statement and report of enrollment are attached).

In connection with our enrollment, it is interesting to note that approximately 36 per cent of our membership is outside of Omaha. The approval of the Nebraska State Medical Association, granted last May, has helped greatly in this respect. Outstate representation on our Board of Directors has also been a factor, no doubt. Our last report shows 17 rural communities, excluding Lincoln and Omaha, participating in the Nebraska Surgical Plan program. These communities are, Alliance, Beatrice, Broken Bow, Fremont, Gering, Grand Island, Hastings, Hershey, Minatare, Mitchell, Milford, Nebraska City, North Platte, Scottsbluff, Sutherland, York and Weeping Water. Types of rural groups enrolled comprise extension clubs, school districts, commercial clubs and rural community groups. The approximate number of members outstate is, subscribers 930, dependents 1,030, total 1,960. The remainder of our membership is from Lincoln and Omaha.

From the standpoint of experience, it is interesting to compare the cost per case for the first fourteen months of operation with that of the Blue Cross. Number of members receiving benefits during the first fourteen months of operation of the Surgical Plan was 144, at an average cost per case of $42.30. This compares with 5,317 Blue Cross members receiving care at a cost of $42 per case. Another interesting sidelight is the fact that, of the 5,317 Blue Cross members receiving care, 3,015 visited the hospital for surgery, or 56.7 per cent of the total, while the remaining 2,302 members required medical service.

Believing the need is urgent, and, furthermore, if we in Nebraska are to contribute our share to forestalling Federal-controlled medicine, your Executive Director recommends strongly the launching of a public relations program through the medium of radio broadcasts and supplementary publicity. A recommendation of your Executive Director looking toward the approval of such a program will also be presented to the Board of Directors of the Blue Cross Plan, in an effort to co-ordinate our public relations program.

In connection with the foregoing recommendation, your Executive Director believes it advisable that the Association follow the example of most Blue Cross Plans and employ a Public Relations Director, as soon as the services of the proper individual can be obtained. This is doubly important at this time, because of the desire of Blue Cross Plans to accelerate membership rapidly, and because of the vast amount of public relations work in connection with the Nebraska Surgical Plan before satisfactory relations can be established.

One of the major tasks confronting us during the coming year will be to obtain the active support and co-operation of the members of the Nebraska State Medical Association. If we are to be properly prepared to go forward with our enrollment at an accelerated pace, then we must have this co-operation. As an example of the results obtainable through close integration of our efforts, the success of our membership campaign in Scottsbluff was due entirely to the interest and active support accorded us by the members of the Scottsbluff

County Medical Society. A large advertisement was inserted in the local newspaper during this campaign, which advertisement was paid for by a group of doctors. This publicity extolled the benefits of the Nebraska Surgical Plan, and recommended a membership therein. Newspaper stories explaining the Plan also appeared in the local newspapers. The number of members added as a result exceeded our fondest expectations. At last reports, the number of members enrolled in Scottsbluff was approximately 1,500, including dependents.

Another problem confronting the Blue Cross and Nebraska Surgical Plans is to find ways of making our services available to the majority of the rural population. In view of the absence of any large farmers' organizations in Nebraska, it will be difficult to reach the farmers very quickly, if we depend on offering our services through smaller organizations, such as extension clubs, project clubs, granges, etc. We are hopeful that the Nebraska Farmers' Union, at its annual meeting in February, will endorse and recommend both Plans, negotiations having been proceeding in this direction for a number of months. If we are successful in obtaining this recommendation, it will mean that we can reach approximately 20 thousand farm families in a comparatively short time.

It is hoped that we can open two additional branch offices, one in North Platte, already authorized by the Blue Cross, and one in Scottsbluff, Nebraska, two of Nebraska's most populous areas. We believe, if it is possible to employ the proper men for these two offices, it would mean a decided and rapid increase in membership for both Plans.

In concluding my report, I wish to acknowledge the fine co-operation of Mr. M. C. Smith, Executive Secretary of the Nebraska State Medical Association; also, the value of the help and co-operation extended to the Nebraska Surgical Plan and Blue Cross by Dr. Herman Jahr. Mr. Smith has offered his services, prior to any campaign we may institute, to explain the program personally to the members of the County Medical Society affected. His cooperation has been extremely helpful, but I am of the opinion that ways and means may be found whereby much additional assistance can be provided by the State Association office personnel. Dr. Jahr, secretary of the Omaha-Douglas County Medical Society, and editor of our medical publications, has been extremely helpful in publishing stories and reports in connection with our progress as a part of our public relations program.

J. H. PFEIFFER, Executive Director.

NEBRASKA SURGICAL PLAN FINANCIAL STATEMENT
December 31, 1945

ASSETS		
Cash in Packers National Bank, Omaha	$22,822.48	
U. S. Securities at cost	10,008.50	
Accrued interest on U. S. Securities	27.05	
Premiums in process of collection	346.72	
Total Assets		$33,204.75
LIABILITIES		
Accounts payable for supplies and expense bills	$ 616.20	
Payable to Associated Hospital Service of Nebraska for clerical services rendered	660.25	
Payroll taxes withheld	55.50	
Claims payable	600.00	
Unearned premiums	7,714.55	
Total Liabilities		$ 9,646.50
Investment and Surplus:		
Subscribers' 4% surplus notes	$19,450.00	
Surplus	4,108.25	23,558.25
		$33,204.75

NEBRASKA SURGICAL PLAN INCOME AND EXPENSE
Year Ended December 31, 1945

INCOME		
Earned premiums	$19,684.23	
Enrollment fees	2,802.00	
Earned interest on bonds	27.05	$22,513.28
EXPENSES		
Claims	$ 6,688.50	
Salaries	2,490.20	
Advertising	814.47	
Printing	833.36	
Stationery	38.25	
Postage	86.55	
Professional	976.67	
Dues	3.75	
Insurance	290.36	
Taxes and licenses	55.99	
Payroll taxes	8.40	
Clerical expense paid to Associated Hospital Service	3,936.84	
Executive expense	195.15	
Directors' fees	275.00	
Other	46.89	16,740.38
		$ 5,772.90

ENROLLMENT BY MONTHS, 1945, NEBRASKA SURGICAL PLAN

Month	Subscriber Additions	Dependent Additions	Terminations	Net Enrollment
January	148	170	14	304
February	210	122	16	316
March	179	146	10	315
April	138	111	18	231
May	135	133	2	266
June	182	168	18	332
July	184	183	11	356
August	216	267	52	431
September	277	307	33	551
October	254	315	37	532
November	321	347	36	632
December	325	519	50	794
TOTAL	2569	2788	297	5060

Number of Contracts

Number of Individual Memberships	1489
Number of Two-Person Memberships	373
Number of Family Memberships	843
TOTAL	2705

COUNCIL ON MEDICAL SERVICE AND PUBLIC RELATIONS, A.M.A.

PREPAYMENT PLANS INCREASE

The number of voluntary prepayment medical care plans continues to increase. As of January 1, 1946, fifty-nine different plans were in operation in twenty-five states. In addition four other plans had reached the paper stage of a prepayment plan (Florida, Illinois, Indiana, Maryland), two county societies (Monroe County, New York, and Albany County, New York) were well along in their plan arrangements. In Arizona, Minnesota, Kentucky and Utah plans were in the offing. The twenty-five states in which plans are operating are: Alabama, California, Colorado, Connecticut, Delaware, Iowa, Kansas, Louisiana, Massachusetts, Michigan, Missouri, Nebraska, New Jersey, New Hampshire, New York, North Carolina, Ohio, Oklahoma, Pennsylvania, Texas, Washington, West Vriginia and Wisconsin.

COORDINATING THE PLANS

The fifty-nine plans mentioned above vary widely in many respects, but with few exceptions they have certain basic characteristics. The general purposes of prepayment plans are—or should be—the same. With these things in mind the Council, with the aid of its Advisory Committee on Prepayment Medical Care Plans, has prepared a report on the

Coordination of Plans. The executive committee of the Board of Trustees has indicated its approval of the report. On February 14 it will be discussed at a meeting of the entire Board of Trustees and the Council.

STANDARDS FOR PREPAYMENT PLANS

One of the recommendations that seems likely to be approved by the Trustees and the Council is that a set of standards be devised as a basis for official A.M.A. approval. The suggestion has been made that approval would carry with it an official emblem similar to the Blue Cross.

PREPAYMENT PLANS AND THE VETERAN

Recent developments in the provision of medical care for veterans may well prove a pattern for future programs of the Veterans' Administration. The California Physicians' Service and Michigan Medical Service have both sgned contracts wth the veterans' agency to assist in its medical care programs. Kansas and Washington (State) are working on plans.

The idea behind this move is to provide a means for permitting veterans to receive treatment and care for service-connected disabilities from their local doctors and in their local hospitals instead of going to V. A. facilities.

The Prepayment Plans merely act as an agent, accepting bills from the doctors, receiving payment from the V. A. Agency, and paying the doctors on the basis of a locally agreed upon schedule of fees. For this service the Plans receive a stipulated percentage for the cost of administration. All forms to be used are developed locally with red-tape held to a minimum.

THE COST OF TRUMANS HEALTH PROPOSAL

The Fergus County (Montana) Medical Society published a full page newspaper spread on the cost of M-W-D bill. Stating that "the word tax is carefully avoided in these measures," it goes on to show the probable tax to persons in various income groups:

Your Salary Per. Mo.	Your Tax Per. Mo.	Employer's Tax Per. Mo.		Per Year
$100	$ 4.00	$ 4.00	or	$ 96.00
$200	8.00	8.00		192.00
$300	12.00	12.00		288.00

A NEW IDEA?

The promotion of prepayment medical plans has proceeded much more slowly than that of hospital plans. In most cases the promotion of both plans has been left to Blue Cross. The California Medical Association, however, is planning a new idea, a voluntary health insurance advertising campaign. Use will be made of the regular channels—daily and weekly newspapers, radio, and possibly trade magazines.

The campaign is to extend throughout the year with the goal the sale of the idea of voluntary health insurance, not any specific service or plan.

CONGRESSIONAL NEWS

BULLETIN NO. 25

Neither the Senate nor the House Committee to which the Wagner-Murray-Dingell bill was referred has announced dates for hearings. Both committees have bills more immediately involved in our present crisis which they must dispose of before they can take up other matters.

It is reported that the House Committee on Interstate and Foreign Commerce is about to study S. 191, the Hill-Burton Hospital Construction bill which passed the Senate before the Christmas recess.

Congressman Lemke has requested a hearing on his Anti-vivisection bill which was referred to the District of Columbia Committee. It provides that scientific experiments may not be performed on living dogs in the District of Columbia.

NEW BILLS INTRODUCED

S. 1633 by Mr. Langer of North Dakota, November 27. A Bill to provide for hospitalization and treatment of members of the armed forces suffering from transverse myelitis. Referred to the Committee on Military Affairs.

Comment: The bill directs the Secretary of War to provide for those of the armed forces who are suffering from transverse myelitis, treatment and hospitalization in areas where climatic conditions are favorable.

S. 1720 by Mr. Kilgore of West Virginia (for himself, Mr. Johnson of Colorado, Mr. Pepper of Florida, Mr. Fulbright of Arkansas and Mr. Saltonstall of Massachusetts), Dec. 21. A Bill to promate the progress of science and the useful arts, to secure the national defense, to advance the national health and welfare, and for other purposes. Referred to the Committee on Military Affairs.

Comment: Subsequent to the hearings accorded the earlier bills providing for the subsidizing of scientific work by the Federal government, Mr. Kilgore drafted a new bill to be entitled "The National Science Foundation Act of 1945." The bill provides that the foundation shall be presided over by an administrator and a deputy administrator to be appointed by the President. There are to be at least eight divisions, one of which will be a Division of Health and Medical Sciences, and each to be headed by a director appointed by the administrator. The administrator will consult and advise with the chairmen of the scientific divisions and the national science board, consisting of nine members appointed by the President. The administrator is authorized to award scholarships and fellowships to persons for scientific study or scientific work at non-profit institutions.

S. J. Res. 128 by Mr. Murdock of Utah, December 20. Joint Resolution authorizing the construction, maintenance, and operation of a laboratory to be devoted to the scientific study and development of artificial legs and appliances therefor. Referred to the Committee on Finance.

Comment: The object of this bill is not to deprive private industry of the privilege of manufacturing artificial limbs, but rather for the Government to set the standard as to qualify.

S. 200 by Mr. Reed of Kansas, December 11. Resolution favoring an inquiry into alleged delays in discharging doctors, surgeons, and dentists from the naval service. Referred to the Committee on Naval Affairs.

Comment: This resolution requests the Secretary of the Navy to appoint a Board of Inquiry to inquire into and locate responsibility for the blundering and incompetency in demobilizing doctors, surgeons and dentists.

H. R. 4795 by Mr. Mills of Arkansas, November 26. A Bill to prevent smuggling of opium and other narcotic drugs into the United States. Referred to the Committee on Ways and Means.

H. R. 4847 by Mr. Peterson of Florida, November 28. A Bill to provide for domiciliary and hospital care for veterans who have reached the age of sixty-five years, with non-service-connected injuries or diseases. Referred to the Committee on World War Veterans' Legislation.

H. R. 4849 by Mr. Springer of Indiana, November 28. A Bill to provide for the discharge or release from active duty of certain members of the armed forces and for terminal leave for enlisted personnel. Referred to the Committee on Military Affairs.

H. R. 5014 by Mr. Johnson of Texas, December 17. A Bill to authorize loans and grants to hospitals and public-health centers for planning, constructing, and improving their facilities. Referred to the Committee on Banking and Currency.

Comment: Authority is given for setting aside a total of $500,000,000 for the planning, construction, improvement and extension of hospitals and public health centers. Grants not in excess of 40% of the cost may be made. Loans may be made for a term not to exceed 40 years at a rate of 2% per annum for any portion of the other 60%. The plans must be approved by the highest public health agency of the state wherein the facilities are situated. Plans must provide that the hospital or public center furnish its services without charge to residents of the region unable to pay therefor. And if requested by the administrator of Veterans' Affairs up to 40% of the capacity of the facilities may be made available for his use.

H. R. 5041 by Mr. Weaver of North Carolina, December 18. A Bill to provide domiciliary care and medical and hospital treatment for members of selective service local boards. Referred to the Committee on World War Veterans Legislation.

H. J. Res. 286 by Mr. Weiss of Pennsylvania, December 10. Joint Resolution to develop and maintain a program of physical fitness for American youth and to provide jobs for war veterans. Referred to the Committee on Education.

Comment: Provides that there shall be created a Commission on Physical Fitness for American youth composed of three members appointed by the President, each member to be an ex-physical training instructor of the armed forces. Commission is to make a full and complete study of the (a) need for a physical fitness program, (b) the feasibility of developing a cooperative plan between the Federal government and the states for a physical fitness program. The sum of $50,000 is appropriated.

H. Res. 439 by Mrs. Rogers of Massachusetts, November 30. Resolution requesting the Federal Security Administrator to furnish to the House of Representatives certain information with respect to the drugs known as "barbiturates." Referred to the Committee on Ways and Means.

H. Res. 440 by Mrs. Rogers of Massachusetts, November 30. Resolution requesting the Secretary of the Treasury to furnish to the House of Representatives certain information with respect to the drugs known as barbiturates. Referred to the Committee on Ways and Means.

Comment on H. Res. 439 and H. Res. 440: These resolutions request the Federal Security Administrator and the Secretary of the Treasury to furnish the House facts concerning the use of barbiturates and suggestions regarding the best methods of protecting the public from the improper use resulting from indiscriminate distribution and sale of such drugs.

ACTION ON BILLS

S. J. Res. 89. International Health Organization bill passed the Senate on December 20 and has been referred to the Committee on Foreign Affairs.

S. 191. Hill-Burton Hospital Construction bill was referred to the House of Representatives Interstate and Foreign Commerce Committee on December 12. Committee will likely hold hearings in February.

S. 715. S. 715, providing more efficient dental care for personnel of the Navy, was approved by the President on December 28 and is now Public Law 284.

H. R. 4512. Bill to amend Public Health Service Act, now known as the national Mental Health Act and a substitute bill for H. R. 2550, was reported in from the Interstate and Foreign Commerce Committee on December 14, Report No. 1445. Has been placed on Union Calendar No. 426.

Other bills remain with committees to which they were referred.

OFFICE OF THE SURGEON GENERAL

CARLISLE BARRACKS MOVE TO FORT SAM HOUSTON TO BE COMPLETED BY MARCH 15

A move involving approximately 6,000 enlisted men and officers will be completed by March 15, when medical activities of Carlisle Barracks, Pennsylvania and the Medical Section and certain portions of the basic training program at the Army Service Forces Training Center, Fort Lewis, Washington, will be transferred to Fort Sam Houston, Texas, Major General Norman T. Kirk, Surgeon General of the Army, has announced.

The concentration of the Medical Department schools and courses at his new center will represent a saving in the transportation of trainees from one school to another in many cases and also will result in more economical and effective operation of the training program, according to Colonel Floyd L. Wergeland, Director of the Education and Training Division of The Surgeon General's Office.

Plans are being made for five battalions which will train about 5,000 men in basic and technician courses at Fort Sam Houston, and a basic Medical Department officers' course of approximately 1,100 newly-commissioner officers will be in continuous operation, Colonel Wergeland said.

The basic training will require six weeks and the basic technicians course will take another seven weeks, making a total of thirteen weeks. The technician schools include courses of eight to sixteen weeks for dental, laboratory, x-ray, surgical and medical technicians. There will be common specialist courses for cooks and bakers, chauffeurs, clerks, auto mechanics and sanitary technicians.

There will be a School of Military Neuropsychiatry and a School of Roentgenology and Medical Equipment Maintenance Technician courses. Residency type training for Medical Corps officers will be carried on at Brooke General Hospital, which is located at Fort Sam Houston, and also at nine other General Hospitals in this country, as part of The Surgeon General's plan to provide greater opportunities for professional advancement to the members of the Army Medical Corps.

The scope of the curriclum indicates that through the training available at this center, it will be possible to take the recruits who come there and train them so that they will be qualified to perform all the duties necessary for the maintenance of a medical unit in the field, even to the point of keeping automobiles in repair and baking the bread.

War Department plans call for the continuation of Carlisle Barracks as an Army post and as the location for the Army Information School.

Carlisle Barracks, which has been a center for Medical Department training for about a quarter of a century, is one of the oldest military stations in the country. It was established by the British during the French and Indian War, and has a rich background of colorful historical incidents. One of the many times it figured in the news was during the "Whisky Rebellion" when President Washington sent "Lighthorse Harry" Lee, father of General Robert E. Lee, against four rebellious Pennsylvania counties in 1791 and 1792. It was then the headquarters for "Lighthorse Harry."

NEBRASKA STATE HEALTH DEPARTMENT

Dr. Fred Long has returned to the staff of the State Department of Health as Director of Communicable Disease Control.

Dr. Long was Health Officer for the North Platte Health Unit from February, 1938, to October, 1941. While in service he was in the field of preventive medicine. His first assignment was as medical inspector at Camp Crowder, Missouri, then he was transferred to the South Pacific. For twenty-five months Dr. Long was malaria control officer in Guadalcanal, New Caledonia, and the Philippines, and lastly, Chief of Preventive Medicine, Surgeons' Section, Army Service Command in the Orient.

The State Department of Health has a number of new films on various phases of public health. These are available for loan to any group that has a sound projector. If a group does not have the equipment then a member of the Health Education staff may be available to bring projector and films to a County Medical Society or other local group. Catologs are available with lists of our films.

"Government in Public Health," is a new book by Harry S. Mustard, M.D., Professor of Public Health Practice and Director of Public Health Faculty of Medicine, Columbia University.

This book is a summary of studies of the New York Academy of Medicine Committee on Medicine and the Changing Order. This is the story of the development of public health service in the United States.

WHAT ABOUT OUR VENEREAL DISEASE PROBLEM?

During the past month the American Social Hygiene Association has been reminding and reinforming the lay population about the extent of the venereal disease problem in the United States. To the medical profession this problem is not a new one, since we are aware that the germs of the venereal diseases continue to make their appearance. However, sometimes, we may be discouraged with the problem when we remember that syphilis has been recognized since the year 1500 A.D., and gonorrhea was recognized at least 5,000 years ago.

In 1910 Paul Ehrlich discovered "606," commonly known as salvarsan, which proved to be a great help in controlling syphilis. Arsenicals, combined with heavy metals, were used until penicillin was first tried by Dr. Mahoney of the U. S. Public Health Service, against syphilis in 1943. The gonococcus, which has long been recognized as the cause of gonorrhea, was discovered in 1879. At first, it was thought that the sulfa drugs, which were discovered in 1936, were going to rid the world of gonorrhea. However, they proved unsuccessful since several strains of the gonococcus were shown to be sulfa-resistant. Pencillin has been shown to "cure" most of the sulfa-resistant strains of gonorrhea.

In spite of all of these advances in the treatment of the venereal diseases, it has been shown by the American Social Hygiene Association that approximately 3,200,000 persons in the United States probably now have syphilis, and it is believed that less than one-half of the infectious cases remain under treatment long enough to prevent relapse. At least one million men and women are infected with gonorrhea yearly in the United States. During the year 1943, a total of 861,000 cases of syphilis and gonorrhea combined were reported by physicians in the United States. This makes seventy per cent more cases than the combined total cases of diphtheria, malaria, meningitis, pneumonia, poliomyelitis, scarlet fever, smallpox, tuberculosis, typhoid fever, and paratyphoid fever. In some cities these figures have been computed for the individual city and have been found to be much higher.

Over eleven million dollars is spent annually in the United States for the care of those persons suffering from general paresis, resulting from syphilitic involvement of the central nervous system. About 100,000 deaths are known to be caused by syphilis each year in the United States. It has been shown that gonorrhea affects more persons than any other disease, except the common cold and measles.

In the United States the medical profession has been quite successful in controlling the communicable diseases, such as diphtheria, smallpox, and typhoid fever through immunization procedures. However, there are no immunization procedures against the venereal diseases. Therfore, this approach is not possible. The attack on the venereal diseases has been carried on through the method of treating known cases for many years, and as evidenced by the large number of cases still existing in the United States, this method of approach has not been very successful.

It is felt by those who have studied the control of venereal diseases extensively that the only means of ever eradicating them will be through the control of promiscuity. Sexually promiscuous individuals have always been primarily responsible for the spread of these diseases. However, it is not always the professional prostitute which is responsible for the greatest number of new cases, but rather it has been shown that sexually promiscuous girls who frequent bars and cheap amusement establishments are responsible for more new infections than any other group of persons. The promiscuous man may spread venereal disease, but his field of contacts cannot be as broad as that of the promiscuous woman.

Since the physician has such a wide influence on his community and also is given a maximum opportunity to discuss confidential matters with his patients, it is felt that he can contribute a great deal to the control of promiscuity and thus aid greatly in the elimination of the venereal diseases.

W. B. Quisenberry, M.D., M.P.H.,
Director, Division of Venereal
Disease Control, State of Nebraska Department of Health.

7 DAYS

The Sunday World-Herald story about Dr. H. L. Kindred, Meadow Grove, "typical country doctor," recently killed in an automobile accident, gives the answer to those who want to put the practice of medicine under state control.

In 52 years of practice he wrote off $125,000 in accounts, never turned down a case because the patient lacked funds to pay, made his calls by automobile, buggy, horse back and on foot wading through waist-deep snow. During the 1918 flu epidemic he worked for two months with two hours of sleep per day. In addition to his professional work he found time to be on the school board for 26 years and on the town board for ten. He fought to build his town into a better community in which to live.

I've known several such medical men in many different Nebraska small towns. They are men of real stature. Men of heroic mould, if you please. I have also been close enough to the bureaucrats to be pretty certain in my own mind that governmental processes can't produce the same type in either quality or quantity.—Elgin Review, Jan. 3, 1946.

DEATHS FROM DIPHTHERIA UNNECESSARY

The deaths of approximately 1,000 American children annually from diphtheria are unnecessary and could be prevented by early administration of antitoxin in adequate doses, according to an article in The Journal of the American Medical Association.

"The available methods for control of diphtheria are sufficient to allow the complete elimination of this disease in the United States," The Journal said editorially. "The application of modern immunization methods of susceptible persons on a countrywide basis would serve to eradicate the disease."

Commenting on the progress already made, The Journal said: "In 1943 the death rate from diphtheria at all ages fell below one per hundred thousand for the first time. At the same time the death rate in children under 10, in whom the disease is most frequent, has fallen below five per hundred thousand."

ROSTER OF NEBRASKA PHYSICIANS IN MILITARY SERVICE

As of February 15, 1946

* Killed in action ** Released from Service † Died

ADAMS COUNTY
**Anderson, Martin F., Hastings
**Coen, Robert A., Ingleside
**Foote, Donovan B., Hastings
Harrington, A. E., Hastings
**Kingsley, D. W., Hastings
Kostal, Otto, Hastings
**Nielsen, Juul, Ingleside
Shaw, W. L., Hastings
Uridil, C. F., Hastings
Weber, C. R., Hastings
BOONE COUNTY
Higgins, J. P., Albion
BOX BUTTE COUNTY
**Kennedy, J. F., Alliance
**Kuncl, Joseph, Alliance
Morgan, R. J., Alliance
Sorensen, C. N., Alliance
BROWN COUNTY
**Prescott, Kenneth E., Long Pine
BUFFALO COUNTY
Albertson, L. C., Kearney
Dickinson, L. E., Ravenna
Hayes, C. B., Kearney
Wilcox, M. B., Kearney
BURT COUNTY
**Lukens, Isaiah, Tekamah
BUTLER COUNTY
Burdick, D. E., David City
CASS COUNTY
Anderson, R. R., Nehawka
**Eaton, Wilbur S., Plattsmouth
Kunkel, L. N., Weeping Water
Formanak, C. J., Murdock
**Worthman, H. W., Louisville
CHEYENNE COUNTY
Bitner, C. U., Sidney
Bush, Stuart K.
CLAY COUNTY
Richter, Donald A., Sutton
COLFAX COUNTY
**Myers, H. D., Schuyler
**Tepley, Gene L., Howells
CUMING COUNTY
Krause, Richard A., West Point
Robbins, H. M., West Point
Thompson, L. L., West Point
CUSTER COUNTY
Koefoot, Ted, Jr., Broken Bow
Leonard, Patrick, Broken Bow
DAWES COUNTY
DeFlon, Eric G., Chadron
McElligott, E. W., Chadron
**Sinclair, R. D., Chadron
DAWSON COUNTY
Anderson, A. W., Lexington
**Norall, V. D., Lexington
**Olsson, Paul Bryant, Lexington
DEUEL COUNTY
**Smith, N. R., Big Springs
DIXON COUNTY
Coe, C. Max, Wakefield
DODGE COUNTY
Byers, R. C., Jr., Fremont
**Merrick, A. J., Fremont
**Morrow, H. H., Fremont
Sobota, J. E., North Bend
DOUGLAS COUNTY
**Holden, W. J., Elkhorn
OMAHA
Alliband, Geo. T.
**Arnsten, L. L.
Avery, Hiram Henry
**Bantin, C. F.
Barber, Herbert Gordon
**Barr, Joseph Harold
**Best, R. Russell
Bowers, Warren F.
**Brazer, John C.
**Burns, B. C.
Carp, Oscar, Int.
**Cash, Paul T.
Cochran, Robt. M., Int.
**Cohen, Louis Allen
**Comine, Jos. J.
Crawford, Wm. Henry
**Crynes, S. F.
Curti, Ralph Elmer
**Day, Robt. Jerome, Int.
**Deakin, Thos. Wm.
**De Long, Henry Livesey
Dolce, Daniel D., Int.
**Donelan, James P.
Dornberger, G. R.
**Dowell, D. A.
Downing, John Edwin
**Dworak, Henry L.
Everitt, Neill J.
Faier, Samuel Z.
**Fellman, Abe C.
Finegan, Jas. F.
Fogarty, Chas. James
Freymann, J. J.
**Gatewood, John W.
**Green, M. C.
**Greenberg, Maynard
**Greene, Arthur M.
Gross, Jos. J.
Green, Chas. Joseph
**Haffke, Oscar William
**Hansen, Clifford H.
Harms, H. H., Int.
**Hardy, C. C.
Hartford, Thos. J.
Hayes, Jack Murray
Hennegan, Geo. F.
Henrich, Leo. Chas.
**Heywood, Leo. T.
**Hirschman, J. H., Int.
Hoekstra, Clarence, S., Int.
**Holmes, W. E.
**Horwich, Joe Maurice
Hubenka, A. H.
**Hungerford, Wm. E.
**Iwersen, Frank J.
Jensen, Werner P.
**Jonas, A. F.
**Kelley, J. Whitney
**Kelley, Wm. E.
Kemp, Wm. T.
**Kiltz, Richard Clyde
Klabenes, Frank J.
Knauff, Harry A., Int.
**Korth, Zeno N.
Koutsky, Jas. John, Int.
Krieg, Jacob J., Int.
Le Mar, J. D.
**Levine, Victor E.
Lewis, Raymond G.
Lierman, C. E., Int.
Longo, Jos. A.
**Mackenbrock, F. C.
Mangiameli, Carl L.
**Mangimelli, Saml. T.
Martin, Paul J.
**McLaughlin, Chas. W.
**Millett, Clinton C.
**Moran, C. S.
Mooater, Chas. J., Int.
**Morrow, Paul
**Muldoon, John H.
Murphy, Albert V.
Nelson, Floyd
**Nemec, Edward Chas.
Nurenberger, Robt. E.
**O'Brien, Donald J.
**Owen, D. R.
Patton, John Erwin
Peterson, Wendell Case
**Plechas, Nicholas Peter
**Popelar, M. V.
Penry, Richard E., Int.
**Rasgorshek, R. H.
**Read, Paul
**Redgwick, J. P.
Reiner, Walter M., Int.
**Rose, Forrest I.
**Schaefers, Richard Henry
Senter, Vance E., Int.
**Shamberg, Alfred H., Int.
**Staubitz, H. F.
**Steinberg, M. M.
*Stokes, Harry B.
Strand, Clarence Johnson
**Tamisiea, John A.
Taylor, Willis
**Thompson, C. Edward
**Tompkins, Chas.
**Townley, Robt. Hadley
**Vroman, Donald Clay
Waters, C. H., Jr.
**Weinberg, J. A.
Wendland, John P.
**Wilson, Donald J.
**Wright, W. D.
**Wyrens, Raymond J.
**Young, Geo. Alex., Jr.
FILLMORE COUNTY
**Huber, Paul J., Exeter
Tucker, John G., Milligan
FRANKLIN COUNTY
Rosenberg, Davis Sam, Franklin
Williams, Martin P., Franklin
FURNAS COUNTY
**James, Louis D., Oxford
GAGE COUNTY
Brown, R., Beatrice
**Bryant, A. R.
**Elias, Houghton F., Beatrice
McCleary, D. P., Beatrice
**Rathburn, S. M., Beatrice
Rush, Weaver A., Beatrice
Smartwood, F. M., Adams
Waddell, Wm., Wayne
GARFIELD COUNTY
**Cram, Roy S., Burwell
GREELEY COUNTY
**Kafka, A. J., Scotia
HALL COUNTY
Campbell, John F., Grand Island
Johnson, E. George, Grand Island
**McDermott, K. F., Grand Island
McGrath, W. M., Grand Island
Rich, Edward W. L., Grand Island
**Royer, Howard, Grand Island
Ryder, Frank D., Grand Island
**Watson, Donald P., Grand Island
HITCHCOCK COUNTY
Brown, Kenneth W., Stratton
HOOKER COUNTY
Buhl, Clayton Edwin, Mullen
HOWARD COUNTY
Hynes, W. P., Washington, D. C.
**Wengert, D. B., St. Paul
JEFFERSON COUNTY
**Ainlay, Geo. W., Fairbury
Lynch, Geo. M., Fairbury
Luce, Roscoe P., Fairbury
**Shupe, Lester L., Fairbury
JOHNSON COUNTY
*Prachar, Gordon, Tecumseh
KEARNEY COUNTY
Sutton, Bruce, Minden
KIMBALL COUNTY
**Lipp, Frank E., Kimball
KEITH COUNTY
Vandiver, H. A., Ogallala
KNOX COUNTY
Carrig, M. H., Bloomfield
Green, Carl Raymond, Niobrara
LANCASTER COUNTY
LINCOLN
**Arnold, C. H.
**Anderson, Jas. B.
Bartholomew, P. H.
Baskin, Abraham H.
Calhoun, O. V.
**Campbell, W. Allen
Colbert, Morgan R.
Crook, Glen Delroy
Elliott, Clarence
Everett, H. H., Jr.
**Fechner, A. H.
**Ferciot, C. F.
Frazier, M. D.
**Garlinghouse, Richard
**Gibson, L. V.
**Gray, Richard
Greer, Rex E.
Haentzschel, L. E.
Haley, Robert R.
Harvey, Glen W.
Heidrich, John Paul
**Hobbs, E. T.
Johnson, R. W.
Lotman, Harry Alfred
**Loudon, J. R.
**Marx, Paul Donald
**Merideth, John A.
**Miller, N. R.
**Miller, S. D.
**Morton, H. B.
**Munger, Horace
**Neely, J. Marshall
**Palmer, R. B.
Peterson, J. C.
**Podlesak, J. J.
**Reed, E. B.

**Rembolt, R. R.
Rider, Larry D.
Reynolds, Verne J.
Royal, Paul
**Sharrar, Lynn E.
**Snipes, J. J.
Stein, Robt. J.
**Still, Richard M.
**Taborsky, A. F.
**Teal, Frederick F.
**Teal, Philip
**Underwood, G. R.
**Whitham, R. H.
William, Russell I.
Wood, M. A.
Zinneman, H. H.

LINCOLN COUNTY
Anderson, Gustave Theodore, N. Platte
Anderson, Thorwald R., N. Platte
Clarke, H. L., Jr., North Platte
Dent, T. E., North Platte
Hirschfeld, Beryl, North Platte
**Hudgel, L. E., North Platte
**Long, Fred P., North Platte
**Millhouse, John H., North Platte
†Redfield, J. J., North Platte
**Schneider, Albert L., Brady
**Shaughnessy, E. P., North Platte
**Waltemath, Glenn, North Platte

MADISON COUNTY
**Brauer, S. H., Norfolk
**Ingham, Chas. G., Norfolk
**Salter, Geo. B., Norfolk
**Sandritter, Gilbert Lee, Norfolk
**Schwedhelm, A. J., Norfolk

MORRILL COUNTY
**Pugsley, Geo. W., Jr., Bayard

NEMAHA COUNTY
**Tushla, F. M., Auburn

OTOE COUNTY
Campbell, G. C., Nebraska City
**Ewing, Ben. E., Nebraska City
**Kenner, W. C., Nebraska City
Thorough, Paul H., Syracuse

PAWNEE COUNTY
Harmon, Leo D., Pawnee City
Lowe, DeWitt S., Pawnee City

PHELPS COUNTY
Brewster, Donald E., Holdrege
Foley, Thos. H., Holdrege
**Matson, Roy M., Holdrege
**Reeder, R. C., Holdrege
**Shreck, H. W., Holdrege

PLATTE COUNTY
**Anderson, Ronald C., Columbus
**Koebbe, E. E., Columbus
O'Donnell, Reynolds J., Columbus

POLK COUNTY
**Brillhart, Everett G., Shelby

RED WILLOW COUNTY
Brimmer, K. W., Washington, D.C.
**Morgan, Donald H., McCook

RICHARDSON COUNTY
**Bozarth, Elton P., Humboldt
Ketter, W. R.. Falls City
Lennemann, Ernest. Falls City
Youngman, R. A., Falls City

SALINE COUNTY
**Mack, M. A., Crete
Travnicek, F. G., Wilber

SAUNDERS COUNTY
**Hervert, Wm. Jas., Valparaiso
**Rogers, E. A., Wahoo

SCOTTS BLUFF COUNTY
**Alderson, Donald M., Gering
Black, Eugene W., Gering
Campbell. Louis S., Scottsbluff
**Gentry, Willard M., Gering
Hanna. Joe T., Scottsbluff
**Ohme, K. W., Mitchell
Rosenau, John A., Scottsbluff
**Zierott. L. L., Scottsbluff

SEWARD COUNTY
Clarke, Harry D., Seward

SHERIDAN COUNTY
Sullivan, Paul J., Rushville
**Wolf, Wm. Kenneth, Hay Springs

THAYER COUNTY
Panter, Lt. E. G., Hebron

THURSTON COUNTY
**Balg, Joseph, Winnebago
Bradley, J. D., Pender

WEBSTER COUNTY
Obert, Francis C., Red Cloud

VALLEY COUNTY
**Kruml, Jos. Geo., Ord
Round, John N., Ord

YORK COUNTY
Kilgore, Robert N., York
Kilgore, W. S., York
Karrer, R. E., York

News of Veterans

Doctors recently dismissed from the armed forces are urged to communicate with editor regarding their whereabouts.

Back to Tekamah is Dr. Isaiah Lukens.

Dr. A. M. Petersen has located in Blair.

Returning to Norfolk is Dr. A. J. Schwedhelm.

Captain John Brush of Norfolk is on terminal leave.

Dr. Kenneth Brown has resumed his practice in Trenton.

Dr. A. E. Harrington has resumed his practice in Hastings.

Also on terminal leave is Dr. D. W. Kingsley of Hastings.

Dr. John McFee, formerly of Ansley, has located in Ogallala.

Dr. Harry Jakeman, formerly of Wahoo, has located in Fremont.

Dr. Harmon Harvey, formerly of Alliance, has located in Portland, Ore.

Dr. Joseph G. Kruml, formerly of Ord, has located in Council Bluffs, Ia.

Dr. E. G. Surber has joined the staff of the Campbell Clinic in Norfolk.

Dr. H. A. Vandiver, in the service since 1942, is planning on returning to Ogallala.

On terminal leave from the Army Medical Corps is Colonel I. C. Munger, Jr., Lincoln.

Dr. Edgar E. Struve, formerly of Lincoln, has become associated with a clinic in Pueblo, Colo.

Associated with Dr. John E. Farner of Valentine is Dr. Thomas Deacon, formerly of Omaha.

Dr. Robert Kilgore of Auburn is on terminal leave. His plans for the future are unannounced.

Dr. Donald C. Vroman has returned to his former association with Dr. L. S. McGoogan of Omaha.

Dr. Richard E. Garlinghouse has returned to his association with Dr. Harry E. Harvey of Lincoln.

Dr. E. J. Shaughnessy has become associated with Dr. H. L. Clarke and Dr. A. J. Callaghan in North Platte.

Dr. C. L. Weber is now on terminal leave, and according to reports, expects to resume his practice in Hastings.

Dr. C. M. Mousel has become associated with Dr. Harris Minnick in the Republican Valley Hospital, Cambridge.

Dr. E. B. Reed of Lincoln has returned to his practice following his recent discharge from the Army Medical Corps.

On terminal leave since January 10 is Major Verne K. Anderl of David City. He is associated with Dr. L. J. Ekeler.

After an absence of three years and serving as commander in the Naval Medical Reserve, Dr. H. B. Morton has returned to Lincoln.

Dr. Paul Barney has located in Columbus where he will be associated with Dr. R. C. Anderson, also a recently discharged medical officer.

Dr. A. H. Fechner has resumed his duties as superintendent of Lincoln State Hospital. Dr. Fechner was retired as commander in USNR.

Dr. Chris W. Bitner, until recently a lieutenant commander in the Navy, has resumed his practice in association with Dr. Hull A. Cook in Sidney.

Dr. Maynard A. Wood is back to his practice in Lincoln after being discharged as commander in the Medical Corps of the U. S. Naval Reserve.

Dr. Kenneth McDermott has returned to Grand Island after serving over three years in the Medical Corps of the Navy. Dr. McDermott was retired as lieutenant commander.

The Copsey Clinic in Alliance, closed for the duration when all three physicians were in the armed forces, has been reopened by Dr. J. M. Kennedy, a member of the clinic, recently separated from the service.

Report on Omaha Veterans Since Last Month's Issue:

Dr. Victor Levine has resumed his former position as professor of bio-chemistry and nutrition at Creighton University School of Medicine.

Dr. Bernard C. Burns has resumed his practice at 421 Farm Credit Bldg.

Dr. Donald Owen, now separated from the service, is again practicing at 1107 Medical Arts Bldg.

Among those who have returned from military service but who have not yet become permanently located are: Drs. A. F. Jonas, Paul Morrow, L. L. Arnsten, Edward Thompson and Charles Tompkins.

DEATHS

Steenburg, Edmund Arthur, Aurora. Born in Ontario in 1865. He attended Rush Medical College from which he was graduated in 1887. He located in Aurora in the same year; and remained there until the time of his death February 1, 1946. Dr. Steenburg was one of the outstanding pioneer doctors in Nebraska. A keen student of human nature, he took an interest in every phase of community life. He was always active in county, state and national medical societies. He served as president of the local, county, and district medical societies, as delegate to the Nebraska State Medical Association, and on numbers of committees of local and state organizations. Surviving are his wife and two sons, Drs. Donald B. and E. K., both of Aurora.

The Grand Island "Daily Independent" had the following editorial on the death of Dr. Steenburg:

DR. E. A. STEENBURG

In 1889 a young doctor came out to the little town of Aurora, Neb., and began the practice of medicine and surgery. Throughout the reaches of Hamilton county Dr. Edmund A. Steenburg was known and loved, as for nearly 60 years he took care of the sick, brought babies into the world, did the multitude of duties that befall a doctor in a community where there are no specialists, and the man of medicine must be an expert in all lines.

The years advanced. Dr. Steenburg went into middle age and past. He reached 60, then 70, then 80, and still he continued his helpful way. Yesterday, at the age of nearly 81, he quietly and peacefully died, leaving behind him a fine tradition and two fine sons who have worked alongside their father for many years.

A student of the country doctor at his best could do no beter than to study the career of Aurora's Dr. Edmund A. Steenburg.

Kindred, Homer L., Meadow Grove. Born in Indiana in 1866. Came to Nebraska in early childhood when his family located on a farm near Omaha. Graduated from Kansas City Medical College in 1892. He located in Pender for a short time. He moved to Meadow Grove the following year and became active immediately. The doctor enjoyed an excellent professional career and with it all the honors bestowed by the community. He served on many committees of a civic nature although his interest in organized medicine always occupied first preference. He died on January 22, 1946, when he was hit by a passing automobile. Surviving are two daughters, one of whom is Dr. Gladys Dolan of Jerseyville, Ill. The Lincoln Star published the following editorial in tribute to Dr. Kindred:

COUNTRY DOCTOR

Something should be said about the life and services of Dr. H. L. Kindred of Meadow Grove. He died last week, a victim of an automobile accident, at the age of 79. For more than 52 years he practiced medicine in a small northeastern Nebraska community in accordance with the best traditions of the old time country doctor.

Until the coming of the automobile he made his professional calls by horse and buggy, and when weather added to the difficulties of that transportation he rode horseback. The item of news that appeared in connection with his death, contained the simple statement that he had never turned down a case, regardless of the financial status of the family. In a half a century of practice he confessed he had written off acounts totaling $125,000. In a case of one family he was present at the birth of 10 children without ever receiving a single fee.

There isn't any good reason why the public should expect a doctor to work for nothing. In urgent cases at least a call at the sick room rises above every other consideration, and where the issue is one of life and death, the public assumes that medical attention comes first and payment for it, if any, comes after. It is unfair to the doctor and it is unfair to his family. But in those 50 years, Dr. Kindred must have known a lot of satisfaction and happiness in his generous ministrations.

Jones, William Yokum, Ponca. Born in Michigan in 1868. Graduated from Creighton University School of Medicine in 1911. He located in the old town of St. James whence he moved to Ponca in 1922. He was one of the old physicians serving in Cedar and Dixon counties. Death came January 31, 1946. Surviving are his wife; two sons, one of whom is Lt. Harold Jones of USNR, Norman, Okla.

Koenig, Margaret, Waterloo. Retired. Born in Waterloo in 1875. Graduated from Creighton University School of Medicine in 1903. She practiced in Omaha for several years, subsequently moving to Lincoln, when she entered child welfare work, remaining there until 1923. She then entered the Public Health Service, and remained there until 1933 when she retired from active practice. She died January 10, 1946, from cerebral hemorrhage. Surviving is one brother.

Schultz, Herman Henry, Hastings. Born in Germany in 1868. Graduated from Lincoln Medical College in 1893. Practiced in Sutton until the middle twenties when he accepted a staff appointment in the tuberculosis sanitorium of the Modern Woodmen of America, at Manitou Springs, Colo. In 1942, he came to Hastings State Hospital as assistant superintendent. Died January 10, 1946. Surviving are his wife and one son.

Porter, Epaphroditus J., Kincaid, Kan. Retired. Born in 1854. Graduated from Rush Medical College in 1878. Practiced for a while in Utica, then moved to Grand Island whence he moved to Kansas and remained in practice until the age of 85 when he retired. Death occurred February 7, 1946. Surviving are his wife and a daughter.

SOCIETIES

Secretaries of county and district societies are requested to send in the minutes of their meetings to The Editor, 218 Medical Arts Bldg., Omaha.

Dodge County Medical Society held a meeting at the Hotel Pathfinder at Fremont January 28. Dr. Grant Reeder was elected president, succeeding Dr. C. D. Heine of Hooper. Other officers elected include Dr. A. J. Merrick, vice president, and Dr. A. O. Fasser, secretary-treasurer.

Garden-Keith-Perkins Medical Society held its annual election January 16, in Ogallala. The new president is Dr. H. A. Vandiver. Dr. S. M. Weyer is vice president, and Dr. C. E. Colglazier of Grant is secretary-treasurer. Dr. S. M. Bell of Grant was electer censor. The new delegate is Dr. E. A. Harvey and the alternate Dr. W. G. Seng. The meeting was devoted to a discussion of medical economics. The leader was Dr. A. B. Redfield of North Platte.

The Dawson County Medical Society met January 7 at Lexington. Dr. V. D. Norall was elected president; Dr. Kyle of Eddyville, vice president; Dr. R. S. Wyckoff, secretary-treasurer; Dr. E. C. Stevenson of Gothenburg, censor; Dr. C. H. Sheets of Cozad, delegate, and Dr. Harvey of Gothenburg, alternate.

The Scottsbluff Medical Society elected Dr. Paul Q. Baker as president for the ensuing year. Other officers are as follows: Dr. George W. Pugsley, Jr., Bayard, vice president; Dr. J. B. Schrock, Scottsbluff, secretary-treasurer, and Dr. W. C. Harvey, Gering, censor.

Dr. A. L. Cooper, Scottsbluff, was named state delegate, and Dr. W. Max Gentry, Gering, alternate.

Custer County Medical Association met February 1 in Broken Bow. Dr. C. A. Rydberg of Litchfield was elected president; Dr. Spivey of Anselmo, vice president, and Dr. Carrie Bowman of Broken Bow, secretary-treasurer.

The Six County Medical Society met at the Hotel Waldorf in Norfolk January 31. The program consisted of two papers as follows: "Medical Experiences in Pacific Area," Dr. W. D. Wright, Omaha, Nebraska, and "Surgical Experiences Afloat in Pacific Area," Dr. C. W. McLaughlin, Jr., Omaha, Nebraska.

HUMAN INTEREST TALES

Communications bearing human appeal are solicited. They should be addressed to The Editor, Nebraska State Medical Journal, 218 Medical Arts Bldg., Omaha.

Dr. Fred Wearne returned from a trip to Florida in February.

Dr. Juul C. Nielsen addressed the Grand Island Kiwanis Club on mental hygiene.

Dr. J. S. Welch of Lincoln addressed the premedical students early in February.

Dr. and Mrs. Geo. H. DeMay of Grand Island vacationed in Long Beach, Calif., in January.

Dr. Guy Slaughter, who for a time practiced obstetrics and gynecology in Omaha, has located in Norfolk.

Dr. Edward Raitt, formerly of North Platte, has rejoined the Public Health Service and will be stationed in California.

Dr. H. Winnett Orr addressed the Interprofessional Men's Club in Lincoln the latter part of January. His subject "The History of Medicine and the Doctors in the Middle West."

Dr. Henry Blum of Lincoln was elected president of the staff of St. Elizabeth's Hospital; also elected were Dr. L. V. Gibson, vice president; Dr. Elmer T. Hobbs, secretary, and Dr. Leonard J. Owen, treasurer.

Tuberculosis Abstracts

The pitfalls, dangers and abuses of bed-rest have been discussed in current medical journals by authorities in many fields. Probably this is a reaction to a form of treatment which has been prescribed with too little discrimination in certain conditions. This wholesome criticism should not obscure the fact that bed-rest continues to be as much a specific in tuberculosis therapy as does insulin, bed-rest should be prescribed and used with precision and intelligence.

BED-REST IN TUBERCULOSIS

Current interest in the dangers from bed-rest challenge those who treat tuberculosis with bed-rest, which is the accepted and approved treatment. If bed-rest may exert a baneful influence on people ill of other disease, should it not on tuberculous patients? If the dangers do apply, are they commensurate with the risk from attempting to treat tuberculosis without bed-rest?

What are these dangers of bed-rest? In tuberculosis they are: (1) pulmonary infarction; (2) inadequate drainage of pulmonary lesions; (3) emotional maladjustment; and (4) improper correlation with collapse therapy. A brief discussion of these dangers of bed-rest seems indicated.

(1) Pulmonary Infarctions: This has been regarded as a danger of paramount importance in people kept abed. What does the record show for this complication in the bedfast tuberculosis person? The Wm. H. Maybury Sanatorium with 845 beds has employed bed-rest and collapse therapy for almost twenty years. Approximately one-half of the patients at any time are not allowed to leave their beds for any reason. Such bedfast patients may be terminal patients, the average new admission, and many other patients with reasonable prospect of recovery.

The first group furnishes nearly all of the postmortem material. During 18 years, among the 751 postmortem examinations there have been signs of pulmonary embolism in 11 cases, an incidence of 1.5 per cent. Nine of these came from terminal patients. The other two patients had a poor, but not necessarily hopeless, prognosis. Thus in only two instances could infarction appear to have contributed to the fatality. From the experience, pulmonary infarction does not appear to be a danger of great consequence to the tuberculous patient.

(2) Inadequate Drainage of Pulmonary Lesions: Bed-rest may mean many things to many people. To some the only limitation on the activity of the patient is that he remain in bed. This is bed-rest in name only and is relatively inert therapeutically. To others it has an increasing therapeutic value as absolute immobility is approached. Unreasoning adherence to this concept fails to allow for pulmonary drainage, especially cavity drainage.

In many sanatoriums so-called "postural rest" is applied to patients with unilateral cavitation. The patient is encouraged to lie on his "cavity side" to protect the less involved lung from positive sputum. The behavior of iodized oil in the chest during cough suggests that the entire tracheobronchial tree, in the presence of cavity, may be bathed frequently in cavitary contents, and thus be contaminated with tubercle bacilli. It would seem then that "postural rest" encourages stagnation of sputum which should be drained.

(3) Emotional Maladjustment: It is a rare person who can accept undaunted a diagnosis of tuberculosis. For him this is a catastrophe of world-shaking magnitude. He could well use the services of a psychiatrist, a sociologist and a philanthropist. Instead, we give him a hospital number, commit him to bed under an inflexible routine and henceforth concern ourselves only with the status of his thoracic contents. Many patients adapt themselves, but in others tenseness, apprehension or despondency are common, as are complaints of muscular pains and exhaustion. Cough may be unnecessarily severe. In this way the patient fails wholly to take bed-rest although he remains in bed. That such patients tolerate bed-rest poorly in no way relieves us of our responsibility. Proper bed-rest is too valuable a tool to be used in a haphazard and reckless way. It is wholly worthy of the physician's best attention.

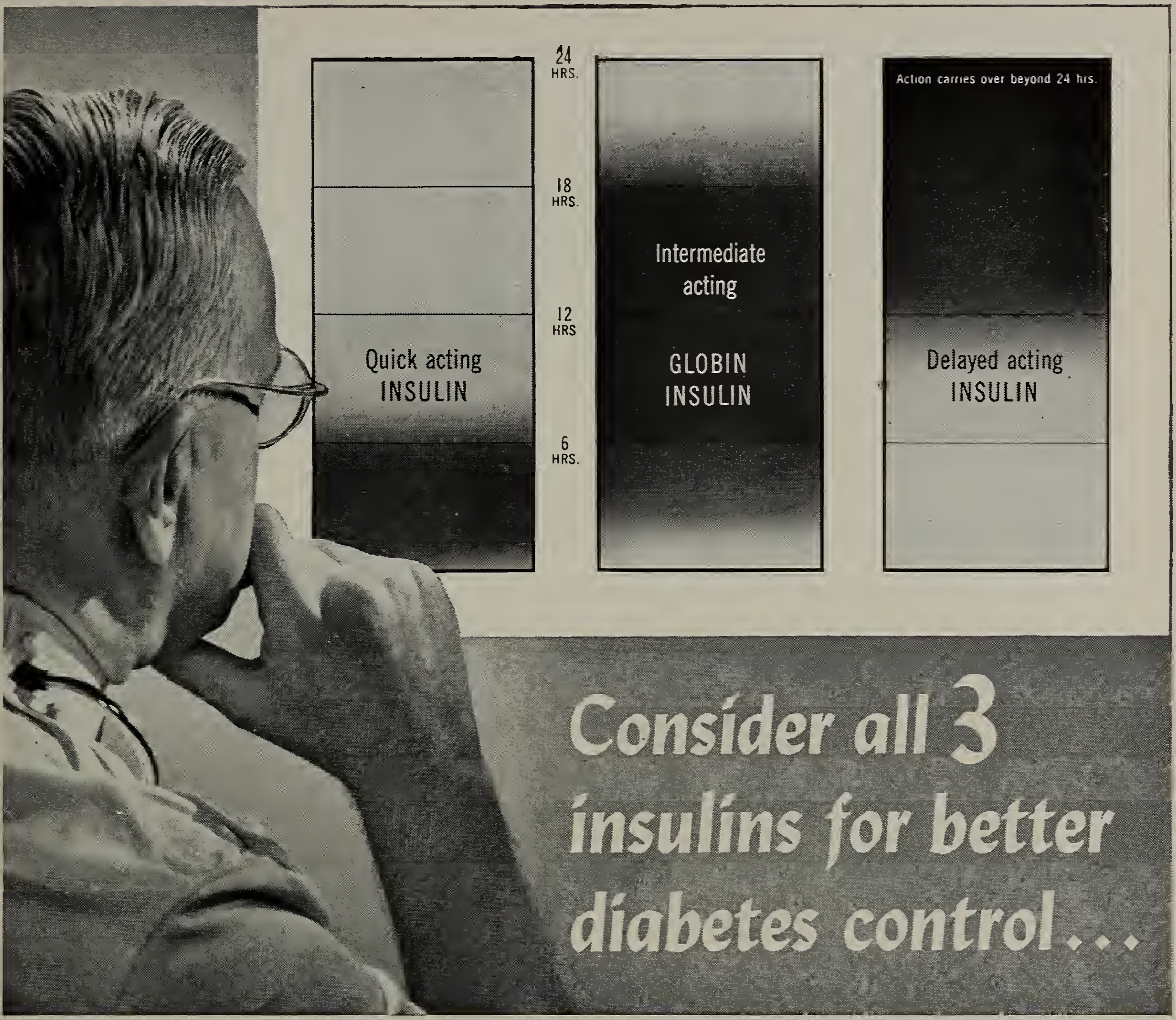
(4) Improper Correlation with Collapse Therapy: Bed-rest and collapse therapy are integral and complementary parts of the sanatorium regimen and allow no competition. A well-balanced therapeutic program for the tuberculous patient employs all proved methods of treatment, combining them as judgment and experience indicate.

Bed-rest is the foundation therapy and upon its integrity depends the success of the entire treatment. When of high quality, great confidence may be placed in it, and collapse procedures may be added immediately, deferred or withheld, depending on the indications. With a well equipped collapse program, exacerbations appear to be related more often to improper rest than to any other factors. It is significant that physicians who relegate bed-rest to nursing supervision have little confidence in it and prefer to rely wholly on collapse procedures.

What, then, is good bed-rest? Krause had defined rest as relief from strain. In bed-rest, mental repose and muscular relaxation are vital features and any rest regimen without them canot be considered a therapeutic procedure. It is a sensitive therapy which reflects the care and finese of its administration. It is a medical problem to be handled only by physicians of proper temperament and training.

Much time must be spent with a patient in helping him to become adjusted. Psychological, social and economic problems must be discussed with him and simplified. He must be indoctrinated with a philosophy which permits him to accept his disease with equanimity and to submit completely and cheerfully to rigid discipline. Thus the seeds for future rehabilitation are planted at the very inception of treatment and many troublesome emotional maladjustments avoided.

(Continued on page xxxvi)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TUBERCULOSIS ABSTRACTS

(Continued from page 120)

Muscular relaxation comes unnaturally to many patients and may be taught only by daily, painstaking repetition. Once achieved, rest in bed becomes pleasant and comfortable. Great insistence should be placed on change of position frequently enough to insure adequate drainage of all parts of the chest. This will involve lying in prone, supine and both lateral positions. Stasis of contaminated secretions in normal areas of the lung must be avoided just as zealously as drainage of diseased areas is encouraged.

Good bed-rest, accordingly, is a precise method of treatment with clear-cut specifications and is based on three fundamental principles: mental repose, muscular relaxation and adequate drainage. Other details are less important and may vary with the type of nursing care available—this without materially affecting final results. The excuse that facilities for good bed-rest are lacking can be rarely substantiated.

—Bed-rest in Tuberculosis, William M. Peck, M.D., and Henry Stuart Willis, M.D., American Review of Tuberculosis, July, 1945.

STOMACH ULCER PATIENTS NEED FOOD AT NIGHT TO NEUTRALIZE ACID

Patients with ulcer of the stomach need to be fed at night to neutralize the acid present which retards healing, according to a report in the February 2 issue of The Journal of the American Medical Association.

David J. Sandweiss, M.D., from Detroit, Major Marcus H. Sugarman and Captain Harold M. Podolsky, of the Medical Corps, Army of the United States, and M. H. F. Friedman, Ph.D., of Philadelphia, studied gastric secretion in 38 normal persons and 29 ulcer patients at the Harper Hospital and the North End Community Fund Clinic, Detroit, Mich.

The authors conclude that although the ulcer patients have no greater volume of gastric juice at night than normal persons, the evidence indicates that they retain more of the juice and acid in their stomachs. Therefore, in order to prevent the acid from irritating the ulcer at night, feeding is essential.

BOOK RECEIVED

The Care of the Aged (Geriatrics) by Malford W. Thewlis, M.D., Attending Specialists, General Medicine, United States Public Health Hospitals, New York City; Attending Physician, South County Hospital, Wakefield, R. I.; Director, Thewlis Clinic; Special Consultant, Rhode Island Department of Public Health. 500 pages, Fifth Edition, thoroughly revised, with 65 illustrations. The C. V. Mosby Co., St. Louis, Mo.

THE NEBRASKA STATE MEDICAL JOURNAL

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EDITORIAL

PLEASE COOPERATE

At its Mid-winter Session in February, the Council of the Nebraska State Medical Association gave its endorsement to the National Survey on the various phases of child health sponsored by the American Academy of Pediatrics. The Survey, according to the statement by the Academy, arose from the realization that the children are to have the care they need in the postwar era. Thorough and systematic planning to provide that care is essential. Furthermore, the Academy feels that the responsibility of such planning rests on the physicians themselves since they are the ones who know and can judge what constitutes good care. They are the ones who for the most part provide that care and they are the ones who therefore should develop and conduct the program.

Before any well founded plans can be evolved a study is required to determine what services are available and to evaluate the quality of those services. One of the primary purposes of this study is to stimulate local groups to discover for themselves the needs within their own communities and to evaluate existing facilities. The Academy further feels that unless physicians themselves will take the task others less well qualified will, as indicated by various bills now before Congress. Thus physicians in Nebraska are urged to cooperate to the fullest extent of their ability in evaluating pediatric services in their own communities. The study is intended to form the basis upon which Congress can be approached in order that the true picture of childhood needs may be established. The Pepper Bill which is now before Congress, it is believed, is an outgrowth of impressions rather than knowledge of facilities and services that now exist in the country as a whole. Aside from its proposal to spend huge sums of the people's money, regardless of individual needs, the program if passed, will create one of the largest bureaucracies the country has ever known. It will require some effort on the part of physicians to enter into this cooperative task, but the time spent will be very worthwhile.

A NATIONAL PLAN FOR PREPAYMENT MEDICAL CARE

For the past several years physicians throughout the country have been asking in varying mood and critical disposition "Why doesn't the AMA come out with a prepayment plan to stop the progagandist in his effort to socialize medicine?" To many of us such a plan was if not impossible because of varying geographical factors, unfeasible due to different economic interests existing in the various sections of our land. However, state and local county societies for many years have been studying the problem of prepayment medical care in their own settings. The bureau of Medical Economics of the American Medical Association for some fifteen years had been coordinating, correlating, and analyzing the different phases of each of these plans. The creation of the Council on Medical Service and Public Relations by the House of Delegates of the American Medical Association in 1943 gave impetus to the renewed efforts toward the establishment of a plan on a national level which would allow freedom of organization and maintenance of prepayment medical care plans to suit the local area and to be administered by the state or county medical society. Much credit for this spurt of interest and activity belongs to the Northwest

Conference which a few years ago began a lively campaign to stress medical economic phases by the various State Associations. The culmination of effort came in the form of a resolution adopted by the House of Delegates of the American Medical Association last December instructing the Board of Trustees and the Council on Medical Service and Public Relations "to proceed as promptly as possible with the development of a specific national health program with emphasis on the nationwide organization of locally administered prepayment medical plans sponsored by medical societies." Following a series of meetings of many leaders in the field, a plan was submitted to the Board of Trustees and the Council on Medical Service of the American Medical Association which was adopted and which laid down certain fundamental principles under which the national plan is to operate. These principles were emphasized in an editorial in the Journal of the American Medical Association on February 24, 1946. They are reproduced on page 160.

To the critics in and out of the profession who will undoubtedly ask "why did it take the A.M.A. so long to come out with their plan?," the answer is that it took many years of local effort, trial and error, to afford the accumulation of experience to determine the most practical method of adjusting a prepayment plan on a national level which at the same time may allow individual societies in adapting their own plan to existing conditions. Whether the present plan is to remain as it is, or for how long, no one can predict. It has, however, the satisfactory feature of permitting individual areas in working out their own destinies provided that the principles involved in the plan are respected. The degree to which the plan will be a success will obviously depend on the extent to which county medical societies will enter into cooperation with the national movement. It should be clear to everyone that it is no longer a matter of whether prepayment systems are desirable; their desirability is well established. It is now merely a problem of each county medical society to work in its own district and seek the organization of a plan best suited to the individual area. Advice on methods of organization can be had for the asking; it is merely a matter of whether such county societies as do not now have a plan wish to enter into the system and thus ward off political interference from our national Capital.

REMEMBER THE ANNUAL SESSIONS MAY 6-9, 1946

On page 138 we publish the program of the Annual Sessions. This year marks the first postwar meeting of our Association and it is hoped that there will be a record attendance. Judging from the nature of the papers to be presented the meetings offer great interest. Many physicians for the past few years have had no opportunity of breaking away from their routines. With the return of our colleagues from the services, few doctors can afford to miss the Sessions. Aside from the practical value of the papers presented in the regular program, many problems of a socio-economic nature will be discussed. With the rapidly changing conditions affecting the country as a whole, and the medical profession in particular, every physician should take it upon himself to attend the Sessions and get first hand information. We look forward to the coming Sessions because it will be the first time in several years that we will be free from misgivings and uncertainties regarding our fellows on the fighting fronts. It will be a feeling of satisfaction and glee to see our young colleagues back in action — as physicians rather than as medical officers in the armed forces.

As a reminder it would be well to make hotel reservations now and not to wait until the last moment when hotel space may not be available.

PENCILLIN SHORTAGE EXPLAINED

The shortage of penicillin for injection, which is causing resentment among physicians unable to secure this product for serious cases of disease, is due to "strikes, difficulty in maintaining production because of contamination during fermentation, increased export, the use of poor quality corn steep liquor and the manufacture of penicilin mixtures," according to an article in The Journal of the American Medical Association.

The editorial stated that "steps are being taken to overcome the penicillin shortage. Export controls have been suggested to permit records of the quantity of penicillin leaving the United States. Directives giving hospitals first call on penicillin production have also been proposed. A higher grade of corn steep liquor is being sought."

The editorial suggested that a "step which should be undertaken by the manufacturers until the present shortage is alleviated is the discontinuance of doubtfully acting mixtures. Penicillin for injection purposes is truly a life-saving measure and its distribution should be given priority over the manufacture and distribution of over-the-counter items of less value."

Charles McMartin, M. D.

READ THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION OF FEBRUARY 23, 1946

Read the Organization Section and the editorial entitled, "The American Medical Association Health Program and Prepayment Sickness Insurance Plans."

The establishment of the Nebraska Surgical Plan and early approval and encouragement of the Blue Cross hospital plans have placed Nebraska well forward in the field of prepayment medical care.

Nebraska Surgical Plan was a charter member of the organization that has become "The Associated Medical Care Plans, Inc.," under the approval of the Council on Medical Service and Public Relations of the American Medical Association.

Nebraska has been recognized in this program by the appointment of the president of the Nebraska Surgical Plan on the Commission of the "Associated Medical Care Plans, Inc."

Nebraska Surgical Plan at the meeting of its Board of Directors, February 25, 1946, voted to include "In Hospital Medical Care" in its certificate. This service will provide indemnities toward the cost of hospitalized cases in addition to existing surgical and maternity benefits.

It will provide for twenty-one days hospital care annually for each individual and each member of a family. It will provide a liberal amount annually to pay the cost of diagnostic x-ray services, electrocardiograph, and basal metabolism tests. At the same meeting the directors increased the indemnities for many items in the original schedule thereby making the certificate of enrollment in the Surgical Plan more valuable to the enrolled individual.

The continued success of Nebraska Surgical Plan is now up to each councilor district and each county society. The measure of success will be determined by the amount of whole hearted cooperation and support each member gives to Nebraska Surgical Plan in its fight to defeat state and political medicine.

Sincerely yours,

CHARLES McMARTIN,
President.

Mental Public Health—A Blueprint*

ROBERT H. FELIX, M.D.
Medical Director, Division of Mental Hygiene,
U. S. Public Health Service
Washington, D. C.

Some years ago, Surgeon General Thomas Parran of the Public Health Service gave us a good definition of a public health problem. He said, "Whenever a disease is so widespread in the population, so serious in its effects, so costly in its treatment that the individual unaided cannot deal with it himself, it becomes a public health problem."

It should be obvious that mental disease qualifies in that category. Indeed, the mentally ill were the first victims of chronic disease whose care was recognized to be a public responsibility. Only in recent years, however, have the professions and public begun to consider this enormous problem as potentially capable of solution through the application of public health methods. For too long the concept of public care of the mentally ill has been to place in an institution those persons whose abnormal behavior can no longer be ignored or neglected. The futility of that concept is attested by the annual increases in such cases and by the high rate of Selective Service rejections due to psychoneuroses and borderline personality disorders. Of the 750,000 men rejected for mental disease, about one-fifth were rejected for major and serious psychoses. The remaining 80 per cent represents the large undiscovered volume of mental disorder in our country, for there is no reason to believe that the incidence of mental illness is higher in males between the ages of 18 and 35 than it is in the rest of the population. The problem with which we have to deal is like an iceberg; only a small part of it is visible; the dangerous bulk lies below the water-line. It is this "unseen" part which must be brought to the surface and dealt with by public health methods.

The public health concept of today is to reduce death and disability and promote health through discovery of the causes of illness, through case-finding, and treatment, both preventive and curative. In 1941, before this country was at war, Mr. Watson B. Miller, Deputy Administrator of the Federal Security Agency, proposed a new concept of preventive psychiatry. "In so many diseases of great public importance, our only means of prevention is early diagnosis and prompt treatment. This is true of tuberculosis and venereal disease . . . it is true if we wish to control cancer. There are no shots in the arm to prevent these ailments; and there is no shot in the arm for mental disease. Nevertheless, through continued research, through education of the professions and the public, and through well-planned programs, we are moving toward the final conquest of tuberculosis and venereal diseases . . . the techniques of diagnosis and treatment of mental disease are not so specific, so precise as in other conditions they prey upon the national strength. But the principle is the same. A program for civilian mental health should be founded upon the same concept—early diagnosis and prompt treatment."

This, in its simplest terms, is the modern concept of mental public health. Even to visualize the application of this concept, we must take a long-range view. No one knows more intimately than the physician what deficiencies in knowledge, in personnel, facilities, and funds stand between humanity and attainment of the objective. Yet we must start toward the goal sometime. And it had better be now, lest the rising tide of mental illness, swollen by this greatest of wars, create an even greater threat to our civilization.

It is with this sobering thought in mind that there is presented here a blueprint for mental public health. It calls for the erection of a structure with several wings, all of which are functionally interrelated. Therefore, the foundations for all the elements must be laid and construction begun at the same time. It will not be possible to complete each part at the same time; but each part must be at some state of completion at all times. The effort toward each specific objective must be parallel.

There is nothing new in the blueprint; no proposal is made here but has been thought of, hoped for, even tested on a small scale by psychiatry in recent years. The need now is to bring these various bodies of knowledge and practice into an integrated system, and to implement its functioning for the promotion of mental health.

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*Read before the Omaha Mid-West Clinical Society, October, 1945.

The several parts of the plan are:

1. Training of personnel.
2. Psychiatric services for case-finding, and for diagnosis and treatment of persons not requiring institutional care.
3. Improved services in mental hospitals.
4. Education of the public.
5. An augmented and coordinated program of research.

TRAINING OF PERSONNEL

At the close of 1941, State hospitals for mental disease in the United States had a deficit of 42 per cent in the number of employees, all categories, recommended for adequate care and treatment. The shortages in professional personnel were far greater than the over-all deficit. The number of physicians employed was 74 per cent less than the recommended quota; of psychologists, 92 per cent; of graduate nurses, 80 per cent; of dietitians, 87 per cent; and of social workers, 71 per cent.

More recent estimates are not available; but when we take into account the known present difficulties of institutions throughout the country, these prewar lacks will probably seem minor by comparison.

It has been estimated that there are in the United States approximately 3,500 experienced psychiatrists, about 1,000 of whom are with the Army and Navy. Thus, we have between 2,000 and 2,500 for civilian services. The heavy concentration of these specialists in the large metropolitan centers, however, means that very large areas of the country are virtually without psychiatric service. The directory of the American Psychiatric Association shows that the number of psychiatrists in the States varies from 585 in New York to none in Nevada. In the State of Nebraska 14 are listed, which allows for the State as a whole, including staffing of mental hospitals, one psychiatrist for every 100,000 of the population.

Postgraduate education of psychiatrists is an important part of the total problem of postwar medical education. To recruit and train sufficient numbers of first-class men and women will require an expansion of the existing facilities for psychiatric training. A number of medical schools do not possess teaching hospitals and clinics in psychiatry-essential facilities for training competent specialists. The establishment of such facilities in conection with all medical schools would also provide centers for the clinical training of other categories of personnel: psychiatric nurses, psychologists, social workers, and attendants.

With more adequate facilities, we should turn our thoughts to improvements of the undergraduate teaching of psychiatry. It should be possible to recruit from undergraduate medical students a larger number of psychiatrists than has been recruited heretofore. This will not be possible, however, so long as the student's introduction to the field consists of a few lectures and a few "ward-walks" in a mental hospital. It takes a mature and tough personality to be attracted to a specialty which is shown to operate under the overwhelming handicaps in our large, over-crowded, understaffed, public institutions. The presence in medical schools of modern, well-operated clinical facilities, and the development of courses in the curriculum which integrate psychiatric principles into all phases of medicine would give to the student a realization of the need for knowledge of the subject, and the proper understanding of the field. This would attract more individuals to the specialty thereby decreasing the deficiency of trained men.

A far-reaching benefit of such facilities and courses would be that all students, both at the graduate and undergraduate levels, would gain a better knowledge of psychiatry for application in their daily practice. Better insight into the emotional problems of their patients would not only assist the physicians, but would serve as a major case-finding medium for the discovery of psychiatric cases requiring special care.

If we think of psychotherapy as "everything which contributes to the care of the patient," we must immediately include in the training program all the personnel of clinics and hospitals who have contact with the patients. Programs for the education of hospital administrators, attendants, and sub-professional personnel are also greatly needed. Constant in-service training of a high order is especially needed in mental hospitals, otherwise reasonably good standards of care will not be maintained.

Much can be done to expand and improve psychiatric training generally by establishing demonstration centers where high standards of care and treatment are maintained. Mobile units, staffed by personnel carefully selected for their teaching ability and equipped with modern training aids, could also assist hospitals and clinics by bringing into the institution new ideas and demonstrations of methods in care and treatment.

PSYCHIATRIC SERVICES IN A COMMUNITY

If we are ever to reduce the volume of mental disease and raise the level of mental health in this country, we must go out and find the people who need help — and that means, in their local communities. In the places where such services have been maintained long enough for observation, it has been found that a psychiatric clinic connected with the health department can function effectively and make a great contribution to the welfare of the community.

The psychiatric clinic, offering consultation, diagnosis, and treatment, sees two types of individuals; the non-psychotic and pre-psychotic patients with personality problems of varying severity; and the convalescent psychotic patients who need guidance and help in making a successful adjustment to home, occupation, and community environment. If the cause of public mental health is to be furthered, these patients must be sought out, brought into contact with the clinic and helped as promptly as possible. There are certain fields in community life where the cases may be looked for profitably and where the best opportunities for preventive psychiatry exist. These include the schools, the courts, the welfare department, other divisions of the health agency, veterans services, and so on.

The vital importance of Community services in mental health is becoming more and more recognized. As physicians, we know that the environment plays a significant role in the recovery of any patient; how much more so in the recovery of the mentally ill: The Interim Report of the Senate Subcommittee of Wartime Health Education (known as the Pepper Committee) makes these recommendations with respect to the mental health needs of veterans: "At present, psychiatric clinics are altogether inadequate to meet the needs of the returning men, and considerable expansion of such clinical services should be undertaken, primarily as a preventive measure, to guard against the aggravation of disorders which are now relatively minor. The acute shortages of trained psychiatric personnel make it imperative that such expansion be accomplished within the framework of general community medical services rather than as a separate program for care of veterans . . . from a longer range point of view, the establishment of child guidance clinics in all communities is urgently needed to prevent early social maladjustments. Such a step would pay tremendous dividends in decreased crime, delinquency, and costs of institutionalizing the mentally ill."

The established pattern of Federal-State cooperation in general health programs, as well as in the campaigns against venereal disease and tuberculosis, could be applied in an attack upon mental disease. Through the media of Federal grants-in-aid, technical and consultative services, and the operation of demonstration centers, it would be possible to initiate mental public health programs in States or Communities — programs which would utilize all available resources for training, clinic services, and improvement of mental hospital facilities.

IMPROVED SERVICES IN MENTAL HOSPITALS

For the past nine years, the Public Health Service has been carrying on a program of survey and advisory service in public mental hospitals. This brings us face to face with the present status of public care of the mentally ill. The picture is not encouraging. For many years we have heard the same reasons for inadequate care: lack of funds, overcrowding, lack of personnel, lack of beds, lack of other facilities.

It is submitted that many of the lacks are not so much quantitive as they are qualitative. With the facilities we now have, with the personnel we now have, with the money now expended — we could in many cases maintain a higher standard of patient care than is maintained in the average mental institution today.

As a start in the right direction, demonstration units might be set up in selected institutions for the purpose of establishing procedures and standards of care. The demonstration is like the pilot plant which American industry has adopted with such notable success during the war. The pilot plant is the practical application of knowledge discovered in the laboratory—preceding mass production. In the pilot plant, kinks in the process are knocked out; more "know-how" is obtained. So it would be in demonstration units such as are visualized for improvement in the quality of service rendered in public mental hospitals.

Another important fact should be borne in mind. Few public mental hospitals today offer financial and professional satisfactions commensurate with the heroic task. Additional postgraduate training, exchange of personnel, and encouragement of research in the hospitals would go far to raise the level of professional practice.

Through the same pattern of Federal-State cooperation, grants-in-aid could be made for improvement of the physical plant and equipment of individual institutions. Construction of new facilities is not meant in this connection. The estimated need for new beds in mental hospitals has varied from 130,000 to 191,000 for the country as a whole. Should proposals for a nation-wide hospital construction program become a tangible program, construction of mental hospitals would greatly facilitate the operation of other phases of the program for mental public health. Expert consultation in hospital planning, as well as in modern methods of hospital administration, training of personnel, and therapy, should be made available for all mental institutions.

MENTAL HEALTH EDUCATION OF THE PUBLIC

The task of mental health education must be accepted as an important part of the total program. In the past, psychiatry has not done an effective job in making known to the general public its accomplishments, objectives, and philosophy. Somewhere along the line, the hopeful story of modern psychiatry and its recent advances has got entangled with age-old superstitions and fears. The stigma of "insanity" still stands between the psychiatrist and those who most need his help. If we ever hope to get acceptance of psychiatric services in the community; if we ever hope to get the "unseen" volume of mental disease under treatment; we must create understanding on the part of the public.

Psychotherapy in itself is a re-education of the individual. Perhaps the fundamental knowledge in psychiatry and even some of the therapeutic technics could well be applied to mental health education of the public. Research is needed in this field as in many others. The immediate objective in mental health education, however, should be to assist States and communities in the study and evaluation of their mental health problems; and to help the schools incorporate concepts of mental health in their environment, curriculum, and teaching methods. Education of the families of mental patients is another field long neglected. Certain groups of the population offer special opportunities for guidance in human relations — notably, college students, members of labor unions, and religious organizations. Educational programs for these groups would prepare the way for acceptance and greater utilization of psychiatric services.

SCIENTIFIC RESEARCH

For several years before the war, the Surgeon General of the Public Health Service annually recommended the establishment of a national research institute for nervous and mental diseases. The new Public Health Service Act (Public Law 410, 78th Congress), enacted in 1944 authorizes the Service to make grants-in-aid to responsible institutions and individuals for research in both physical and mental diseases and impairments. The provisions are along the same lines as those authorized in the National Cancer Institute Act of 1937.

The Surgeon General's recommendations for expanded research in mental and nervous diseases have always included a hospital for clinical research as a part of the proposed mental disease institute. Research fellowships at the institute or other psychiatric centers, have been recommended.

The Federal program of medical research under the Office of Scientific Research and Development has proved invaluable to the war effort, through the coordinated and intensified effort of scientists all over the country. Augmented research in mental and nervous diseases is absolutely essential, if we are to deal with the growing problem. We have only begun to see "as in a glass darkly" some of the causes of mental illness. This great unexplored field is the greatest challenge still before us. As we penetrate it, we shall continue to find new and better ways to prevent and to cure mental disorders.

CONCLUSION

An attempt has been made in discussing a blueprint for mental public health to bring out the inter-relationships of each part of the plan. Without training personnel, we cannot hope to expand preventive psychiatry; without community psychiatric services, many early cases of mental disorder cannot be brought under treatment; without improved services in mental hospitals, we cannot effectively treat the psychotic nor can we train personnel of various categories for maintaining adequate standards of care; without augmented reserch, we shall too slowly acquire new knowledge which would make the other parts of the plan more effective and economical in operation.

Psychiatry has been put to the test in the present war. In the armed services we have put to the proof much that had been learned, but never tried in the crucible of large-scale application. Many of the men in the Army and the Navy have learned that psychiatry can assist them, and that the psychiatrist is not merely a "nut doctor." Many have learned to accept mental illness as they would another ailment, and the psychiatrist, as they would other specialists. If this hopeful attitude is to be kept and exploited for the benefit of the country as a whole, States and localities must begin to work now toward attaining the objectives in mental public health which have just been outlined.

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IN THIS ISSUE

WE all appreciate the importance of mental hygiene, both in the individual and as a community problem. At the last Sessions of the Omaha Mid-west Clinical Society, Dr. Robert H. Felix of Washington, D. C., outlined a blueprint for mental health as a specific phase of public health. This excellent presentation is now published on page.... 124

MANY of our readers participated in panel discussions during the last Session of the Mid-West. The symposium on penicillin was well attended, and upon popular request three of the papers were made available for publication. They appear in order as follows:

1. "Pencillin in Internal Medicine" by Dr. Rodney W. Bliss, Chairman of the Department of Medicine, University of Nebraska College of Medicine 129
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SYMPOSIUM ON PENICILLIN

Penicillin in Medicine*

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Cecil Rhodes, when on his death-bed at forty-nine years of age, is reported to have said: "There is so much to do and so little time to do it."

When one reads the literature on Penicillin, published in the last four years, one wonders how so much could be accomplished in so little time. While this mass of literature has accumulated in such a short space of time, we appreciate that a great deal of spade work was done before 1941. As long ago as 1877 Pasteur and Jombert were aware that certain air borne substances inhibited the growth of the anthrax bacillus and they suggested that this phenomenon of antibiosis might be of use in the treatment of certain infections. This was based on the fact that certain growths could be stopped by the concomitant growth of another. At least this was true in the test tube.

In 1928 Fleming made the observation that around a large colony of contaminating mold transplanted staphylococcal colonies had become transparent and were undergoing lysis. He then began preserving the mold and it is well known that practically all the penicillin for clinical use prepared in England and America since 1943 was derived from the subcultures of this same mold. He knew that the mold belonged to the genus penicilliam and he therefore coined the name penicillin.

In my part of this discussion I wish to recognize the work of the Oxford investigators, beginning in 1940 which was voluminous but was preceded by Flory's studies for twelve long years before that time. It is interesting to note that in 1940 the Oxford workers found that it took 100 liters of their mold brew to treat one patient for one day; but now, in 1945, penicillin is plentiful and also inexpensive. This is due in a great measure to the many practical means of culture brought out in America during these five years. As recently as in May, 1944, I treated a case of subacute bacterial endocarditis. Mr. H. was a college student with no means but he was able to borrow $268.00, which 2,500,000 units cost him; but now, 3,000,000 units would cost him $27.00. But it was worth it, as the man had, before his treatment, several positive streptococcus blood cultures. He has had several negative cultures since and he is clinically well.

The Oxford group found many heavy metals caused inactivation of Penicillin Notatum but they were finally able to grow the mold only in bed pans. Their first clinical case was that of a policeman with a staphylococcus aureus and streptococcus pyogenes infection. He was treated with penicillin—some of which had been recovered from the urine. There is a story that one of the Oxford professors in discussing penicillin was heard to tell his students: "My fellows, you should learn about this penicillin — a remarkable substance. It is grown in bed pans and purified by passing through the Oxford police force."

Investigation as to methods brought brilliant results—due largely to the stimulus of Flory's visit to the United States in 1941 under the sponsorship of the Rockefeller Foundation. With the aid of our mold experts, and our "mold merchants," several of our large drug houses and many others, we found the "know how" of making large amounts of penicillin in a very short time; so that now our wonder drug is within the reach of all.

Before passing on to the use of penicillin in medical diseases we should note the huge amount of in vitro studies, or studies in the test tube, before attempting the in vivo work —that is, its effect on human beings who harbor certain bacteria. In vitro the following organisms have been found to be susceptible to penicillin: (1) diplococcus pneumoniae; (2) streptococcus salivarius; (3) staphylococcus aurens; et albus (some strains); (4) neisseriae gonococci; (5) neisseriae intracellularis; (6) actinomyces bovis; (7) B anthacis; (8) B subtilis; (9) clostridia botulinum; (10) clostridiae tetani; (11) clostridum welchiae; (12) clostridium diphtheria (some strains); (13) streptobaccilus moniliformis and (14) treponema pallidum.

INSUSCEPTIBLE ORGANISMS

(1) Eberthella typhosi; (2) salmonella paratyphi; (3) salmonella enteridus; (4) shigella dysenteriae; (5) bacillus pyocyaneus; (6) nemophilies influenzae et pertus-

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sis; (7) staphylococcus albus (some strains); (8) monilia albicans; (9) blastomyces; (10) myobactericum tuberculosi; (11) brucella melitensis, and others not so important.

While it is important to know susceptible or nonsusceptible organisms in vitro, one must appreciate that they may not be so classified in vivo. This brings me to the important discussion in my paper. What is the effect of pencillin in sick folks? What sicknesses indicate the trial of penicillin; In what cases can we expect help? In what others is our new medicine of no value? And can any harm come from its use?

Reiman, in the Archives of Internal Medicine (October, 1944) makes the statement: "Penicillin has the three properties of the ideal antiseptic which have long been sought without serious expectation of ever finding them in one substance, namely—enormous antiseptic power; almost complete indifference to the medium in which it acts, and almost complete non-toxicity."

To be effective a drug must be absorbed. It has been shown many times that penicillin is absorbed into the red cells, the cerebrospinal fluid, the ocular tissues and tears; the saliva, the pancreatic juice; into the peritoneal cavity, the pleural space, joint fluid, the placenta and into the bile. A drug must be excreted but not too rapidly. It is known that a single dose—say of 20,000 units—is excreted very rapidly if given intravenously. 50 to 60% is usually excreted in one hour and sometimes the excretion is complete in one hour. The intramuscular injection is excreted more slowly and is the method now quite largely used, and at intervals of every three hours. If used intravenously diadrast or para animo hippuric acid have been found to be good inhibitors to secretion. One must remember that poor kidneys delay the secretion often quite markedly.

The methods of administration have been discussed by others and will be mentioned only in specific cases.

The army and navy, having under their care young men by the thousands, have an unusual opportunity to present valuable statistics. In "War Medicine" March, 1945, a group presented their experiences in 1,165 cases and give the following conclusions: Pencillin was found to be effective in treatment of:

(a) 100% of gonococcus infections.
(b) 100% of meningococcus infections.
(c) 100% of pneumococcus infections.
(d) 92% of hemolytic streptococcus infections.
(e) 88% of staphylococcus infections.
(f) 78% of mixed infections.

They also advise as to the amount of penicillin used in their series and report good results in:

(1) Gonococcus infection, 80 to 100,000 units for one day.
(2) Pneumonia, 80,000 units daily for five days.
(3) Empyema, 50,000 units daily for five days.
(4) Staphylococcus infections, 240,000 units daily for 12 to 20 days.
(5) Osteomyelitis, 160,000 units daily for 20 days.
(6) Mastoiditis, 120,000 units daily for 12 days.
(7) Carbuncles, 120,000 units daily for 6 days.
(8) Peritonitis, 240,000 units daily for 10 days.

I well remember in the definition of pneumococcus pneumonia the aphorism: "Pneumonia is a self-limited disease." Certainly that was true in the pre-antipneumococcic, pre-sulfonamid and pre-penicillin days. Our duties then were to treat symptoms as they arose; have good nursing and fresh air, including an air of confidence. In those days the mortality varied up to 50% in large charity hospitals like Bellevue, down to 10 to 15% in private practice with patients younger in years, and with greater resistance.

Pneumonia was a terrible disease and it still has not lost its terrors; but certainly we have every reason to believe the clinical reports on both the sulfa drugs and penicillin. Many of these reports show that the mortality rate has been more than cut in two.

The sulfa drugs are potent in pneumonia but we know they may be toxic. No one should be criticised for using them but the evidence is rapidly piling up that penicillin is largely non-toxic, and the balance seems to be toward the penicillin side. The intramuscular route is most frequently used and the dosage of 20,000 units every three hours; and 300,000 units is usually sufficient to rob the disease of its symptoms but not the physical findings. The use of an ice bag, applied at the site of injection, I have found pleasing to the patient.

The use of penicillin by mouth is here but is still more expensive than the intramuscular method. It is apparently of value and will be cheaper soon. It may be the practical way, especially in non-hospitalized patients. The intravenous route in the form of continuous drip may be used in the very severe and highly toxic cases. Finally, there may be very severe cases where the double barreled treatment, or penicillin and sulfa, may be used. Streptococcus and staphylococcus infections are legion and are seen by general practitioner, internist, surgeon, eye and ear specialists, skin men—and in fact by any or all of us—and we all rejoice at the advent of penicillin. It is sad to report that some staphylococci and some streptococci are penicillin resistant—but this should not deter us in its use.

Is the use of penicillin of value in the common cold? It is probably not. However, the streptococci and staphylococci are usually present in the mouth and throat and one is tempted to spend two or three of the patient's dollars in the hope that the bacteriostatic action will at least silence the secondary invaders.

Of special interest to the internist are the many reports of apparent recoveries of proven cases of subacute bacterial endocarditis. In the January 20th number of the Journal of the American Medical Association Master, Henry, Hunter and Potts report recoveries to that date of 15 to 20 cases. Dr. Leo Loewe discusses massive doses of penicillin with Heparin and states that the essential feature is the massive dose. He states that the sterilization of the blood stream for at least five consecutive weeks is necessary, and with the intravenous use of 200,000 to 500,000 units by the continuous drip method, this runs into ten to fifteen million units in that period of time.

Harrell suggests the selection of veins on the back of the hand as being much easier for the patient. Personally, I have only one recovery in a proven case of subacute bacterial endocarditis with the viridans, and that man is negative today and clinically well, following 3,000,000 units by intravenous drip.

The use of penicillin in syphilis is still too new to make positive statements. However, the literature is hopeful both in early and late syphilis. Osmond, in the British Medical Journal, June, 1945, reports a case in which the appearance of syphilis was delayed by the penicillin treatment of gonorrhea; and Atcheson warns that the dosage needed for gonorrhea is entirely inadequate for syphilis.

To recapitulate: the diseases in which penicillin should be tried: (1) all streptococcus and staphylococcus infections, both in bacteremias acute or chronic, and any locus of infection in any part of the body; (2) gonococcus infections; (3) meningococcus infections; (4) the pneumonias; (5) anthrax; (6) blastomycosis; (7) botulinis infections; (8) syphilis, probably, and other spirochetal infections, as Vincent's angina—and again all these rare infections in which penicillin seems to value in vitro.

As to reactions to penicillin: We find largely a mild urticarial reaction in only about 3% of cases. However, there may be various other manifestations of skin allergy, either to the drug or its impurities — but these are usually not of serious portent.

It seems that the master drug of 1945 is penicillin, but we should not consider it a cure-all. My first refusal from Keefer was in a case of acute lymphatic leukemia early last year when the drug was scarce. Future reports show that Doctor Keefer was right. It is of no value in typhoid or the typhoid group—or any of the shigella dysenteries; in influenza or any virus diseases; in Malta fever or, to date, in tuberculosis or malaria and — unfortunately, up to this time — in acute rheumatic fever or any of the arthritides except the Neisserian infections.

BIBLIOGRAPHY

Administration by Mouth; J.A.M.A., 127:639-649, March 17, 1945.

Chemotherapy; Minnesota Medicine, 28:115-117, 1945.

Failure to Influence Favorably Certain Medical Conditions; J. Lab. Cl. Med., 3:132-134, Febr., 1945.

Penicillin Program at Naval Hospital; War Med., 7:170-172, March, 1945.

Discussion, Cases Treated by Penicillin; Roy. Soc. of Med. Proc., 37:499-506, July, 1944.

In Acute Chronic Infections; J.M.A., Georgia, 33:249-251, August, 1944.

Indications, Dosage and Administration; Clinics, 3:309-324, August, 1944.

Infectious Diseases; Tenth Annual Review of Significant Publications, Arch. Int. Med., 74:280-310, October, 1944.

Topical Application; Am. J. Med. Sc., 208:577-580, November, 1944.

Allergy; J. Allergy, 15:271-273, July, 1944.

Herrell: 1945, Monograph, Pencillin and Other Antibiotic Agents.

Windsor C. Cutting, Richard M. Halpern, et al: Penicillin: C. S. C. Reporter, September, 1945: J. Carl Hoppe, St. Louis: Limits of Pencillin in Smpyema; J.A.M.A., Vol. 129, No. 6, October 6, 1945.

Mostin, Henry, Hunter & Thomas H. Potter: The Treatment of Subacute Bacterial Endocarditis with Penicillin; J.A.M.A., Vol. 127, No. 3, Jan. 20, 1945.

Pencillin; C. S. C. Reporter, September, 1945: Harold J. F. Kullman and Jacob Antrim Creelin, Ann. Int. Med., Aug., 1945. Allen J. Josey and Forrest E. Kishman, An. Int. Med., June, 1945: Penicillin Treatment of Sulfa-resistant Gonorrhea.

Use of Penicillin in Urology*

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The approach to this subject must vary according to the viewpoints and special interests of those addressed. The average general practitioner will of necessity be concerned primarily with the therapeutic aspect rather than the diagnostic one when he handles a urological case in which penicillin may be of value. The urologist in contrast is essentially a diagnostic technician by training and normally thinks of therapy only after the application of more or less complete diagnostic procedures always available to him have indicated the therapy to be used. I will make no attempt on this occasion to point out the etiological and pathological factors that will cause penicillin to fail to relieve a specific list of urological disorders. In most instances you will use penicillin in the acute febrile conditions before opportunity for complete urological examination is available. Urology is concerned with surgical diseases of the genito-urinary tract and penicillin is not a substitute for any indicated surgical procedure. On the other hand it has specific bacteriostatic effect on certain definite micro-organisms and when these are present in the urogenital tract penicillin is a valuable addition to our armamentarium. It is the observation of many of us that penicillin is being used rather empirically by some men for almost any condition in which the illness is acute, febrile, and not responsive to sulfa drugs tried previously. This shot-in-the-dark application of therapy to the sick is not so deplorable as it might seem. There are some practical reasons for such behavior on the part of medical men especially when the therapeutic device is so harmless, and I am sure we are not going to forget the importance of accurate diagnosis in the practice of medicine. Penicillin is a wonderful substance, patients demand it if relief is not as prompt as they anticipate, and the busy practitioner hasn't had time as yet to become aware of the exact field of usefulness of this therapeutic agent.

There are in fact very clear cut indications for the use of pencillin in urology. First in importance, perhaps from the standpoint of frequency of occurrence, is gonorrhea. This importance seems less notable since the advent of sulfanilamide treatment about 1937, but penicillin when properly given cures literally all cases of Neisserian infection whereas the sulfa drugs do not. Complications of gonorrhea resulting in poorly drained abscess cavities will require surgery, but penicillin will still be of primary importance in eradicating the multiplying bacteria from all the tissues. The same may be said of coccal infections of the kidneys. Staphylococcic infections of the renal cortex may produce multiple small abscesses and localized groups of such abscesses are referred to as carbuncle of the kidney. This is a condition in which penicillin may be life saving. The two micro-organisms just referred to are causative of most of the urological complaints for which penicillin is definitely indicated and yet only in case of the first mentioned—the gonococcus—is it absolutely specific and always dependable.

There are many instances of urinary infection where the causative organism is a gram negative bacillus; in fact this organism is the cause of a larger percentage of urinary infections than is any other bacterium. These gram negative organisms will not respond to penicillin, but penicillin will receive the credit, just as a thousand other remedies for urinary infection have, and still do. We must not fall into the error of giving credit where none is deserved.

Finally there are many mixed infections of the urinary tract. Here we observe patients in their good days and their bad ones, so that therapy of the type being considered will be hard to evaluate. It is extremely doubtful if penicillin can be of more than temporary value in any such case, and it will give partial relief only if one of the following organisms is taking an active part in the infection, namely: the gonococcus, meningococcus, pneumococcus, hemolytic and aerobic streptococcus, staphylococcus, clostridium, and anthrax. Excepting only the gonococcus, these organisms are seen in the urinary tract only rarely as compared with the gram negative bacilli. We may emphasize again that of all these bacteria penicillin is specific only for the gonococcus which is in turn the most sensitive of the group and hence liable to be eradicated by the smallest dose. The others require heavier dosage over more lengthy periods of time.

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Methods of administration and dosage haven't been determined with finality at this time. Since penicillin is eliminated so rapidly through the kidneys it is difficult to keep the titer of the substance in the blood high enough over a suitable period of time to eradicate the organisms under attack. For Neisserian infections 10,000 units intramuscularly every 3 hours for 10 doses usually suffices. In case of failure the dosage is doubled. Recently "Penicillin Calcium in Oil with Beeswax" has become available with 300,000 Oxford units present in 1 cc. of the preparation. This, when given intramuscularly, is said to liberate the penicillin gradually and continuously so that only one injection or at most two injections at 12-hour intervals may be necessary to eradicate the gonococcus. Tablets containing 20,000 units each are also obtainable. Just how effective the oral route of administration will be is yet to be determined. The dosage for organisms other than the gonoccccus must vary with the clinical conditions but the amount given is necessarly larger since all the other sensitive organisms are more resistant than are the usual strains of gonococcus.

To summarize, penicillin is specific for Neisserian infections of all types. It is of definite value in cases of infection by the staphylococcus and some other organisms very infrequently found in urine and then usually in combination with gram negative bacilli which do not respond to penicillin at all. Urinary stasis incident to various surgical conditions may interfere completely with the attainment of good results even where the organism present is of a type more or less sensitive to penicillin. If penicillin must be employed before complete urological examination has found definite indications for its use, it should not be continued in large dosage over many days. If it is going to be effective the response should be prompt and dramatic. If improvement is doubtful complete examination should be offered without further delay.

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Pharmacology and Methods of Administration*

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The living organism protects itself against its enemies in many ways; one of which is excretion of a specific substance which interferes with the metabolic process of other organisms to such an extent that their growth is retarded or completely repressed. This protective mechanism is known as antibiotic activity, and the excretory substances exerting the activity are known as antibiotics. Penicillin is an antibiotic produced during the growth of a strain of a species of mold known as penicillium notatum. The interesting story of the development of the processes for the practical production of penicillin cannot be considered at this time, but it may be said that the availability of penicillin to the man in the street today is due to the cooperative efforts of widely diversified workers and industries laboring together with the common good as an objective. The existence of penicillin and its antibiotic action has been known since 1929, but it has been only during the past few years that real progress has been made toward the goal of practical usefulness.

The antibiotic activity of penicillin is exhibited against a variety of organisms; among them are the gram-positives such as the staphylococcus, the hemolytic streptococcus and the pneumococcus. While in general penicillin is not effective against gram-negative organisms, the gonococcus and the meningococcus are notable exceptions. The effectiveness against certain of the spirochetes is well known. The recent article by Keefer(1) describes in detail the organisms that are susceptible as well as those which are not affected.

The exact mode of action of penicillin against the susceptible organisms is as yet not fully understood, but it is believed to be antibacterial rather than antitoxic. Penicillin does not inactivate the toxin that may be elaborated by a susceptible organism. Much is being done to learn more about the antibacterial effect of the substance, to determine if possible whether this action is bacteriostatic or bactericidal. The present day literature offers conflicting evidence. It appears that the action is due to interference with certain metabolic processes concerned with the growth or reproduction of the microorganisms. An opinion that the bactericidal action is exerted only against susceptible bacteria that are about to divide has been expressed by several groups of workers. A prominent characteristic of penicillin action is that it apparently exerts a direct antibiotic effect and does not require the participation of specific antibodies or an active phagocytic system. Penicillin exerts its antibiotic effects in vitro as well as in vivo.

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*Read before the Omaha Mid-West Clinical Society, October, 1945.

The penicillin currently supplied for use consists of a mixture of active principle and inert material. Because chemical methods of assay are as yet lacking, the penicillin content is expressed in terms of its antibacterial activity. For this purpose an arbitrary value known as the Oxford or Florey unit has been universally adopted. It is the amount of penicillin which when dissolved in 1 cc. of water gives the same inhibition by the cup assay method as a stable penicillin solution maintained as a reference standard. The primary standard penicillin was brought to this country by Florey in 1941. The present international unit is essentially equal to the original Oxford unit. The international standard is a crystalline sodium salt of penicillin with a potency of 1,667 units per milligram.

The sodium salt as now produced is a light orange-brown hygroscopic powder having a slight odor. Batches differ in the degree of browness. It is very soluble in water. The presence of sodium chloride, dextrose or certain of the local anesthetics in the solution of penicillin has no unfavorable effect upon the substance or its activity. Both in the dry form and in solution, penicillin is quite stable if maintained at refrigerator temperatures, and solutions of penicillin have been shown to maintain their full potency for more than thirty days when so stored. The calcium salt of penicillin is a yellowish material of rather more bulk than the sodium salt. It, like the sodium salt, varies in its degree of brownness according to the method of purification. It is characterized by being less hygroscopic (having less affinity for the moisture of the atmosphere) than the sodium salt, and it is therefore more easily handled in procedures requiring exposure to the air.

Within the past year, crystalline penicillin has been prepared and at least three penicillins have been separated and named. They are known as penicillin F (I), G (II), and X (III); and their production is related to the type of culture process employed. For example, the penicillin obtained by tank culture is principally the G form. There is evidence of definite therapeutic specificity among the several types. For example, penicillin G is less active against the gonococcus than is the crude penicillin, and Type X is the most active of the several forms against this organism. Since the composition of the penicillin available for use is variable, it is understandable why there are some discrepancies in the reports pertaining to the effectiveness of the substance.

Excretion of the penicillin is by way of the renal tubules, and as much as sixty per cent of a single intravenous dose may be recovered in the urine within one hour of administration. No destruction in any of the body tissues has been demonstrated.

The degree of antibacterial action is in direct proportion to the concentration of penicillin in the serum. Rammelkamp and Keefer⁽²⁾ found the maximum effects against streptococcus hemolyticus to be exerted with a concentration of from 0.019 to 0.156 unit per cubic centimeter of serum. Against staphylococci slightly higher levels were necessary, at least 0.156 unit being required for maximum effect. Gonococci and the pneumococci are both rated as highly susceptible organisms. When administered in the common manner in moderate dosage. little of the drug passes into the cerebrospinal fluid or into the serous spaces. Penicillin does pass through the placenta.

Clinically, no significant toxic effects have been observed following systemic therapy with either the sodium or the calcium salt; the few untoward reactions which have been reported have generally been attributed to impurities in the product administered and to individual sensitivity on an allergic basis. Thrombophlebitis has been reported and is noted most frequently when concentrated solutions were employed and repeated intravenous injections made. However, there is ample evidence that for all clinical purposes penicillin has few or no toxic properties and dosage within any reasonable limit may be determined on the basis of clinical requirement without consideration of possible toxic effects. The early report that the calcium salt was unsuitable for parenteral use has not been substantiated.

Because penicillin produces alterations in the blood clotting process resulting in a hastening of clot formation and a shortening of the bleeding time, there are some who believe that the danger of thrombus formation during penicillin administration should be considered. No change in prothromin time has been observed during its administration.

The parenteral route is the common method for administering penicillin, and the method of choice is intramuscular. Subcutaneous administration is not generally recommended because it is likely to produce pain. However, some recent reports of use in this manner have been favorable. The impression is gained that, as the penicillin is produced in a more purified form, the painful reactions will be reduced. Small amounts of procaine have been successfully used in penicillin solutions to prevent pain on intramuscular administration. It would seem that the use of this procaine-penicillin mixture would be ideal for the subcutaneous administration. The advantage to be gained by the subcutaneous route is better controlled and slowed absorption which tends to maintain better blood levels.

Penicillin is so rapidly excreted by the kidney that it is often impossible to detect it in the blood two hours after a single intravenous or intramuscular injection, so repeated injections or continuous infusion both intravenously and intramuscularly are used to maintain satisfactory therapeutic blood levels. For continuous infusion into muscle, the daily dose of penicillin is dissolved in about 250 cc. of normal salt solution and infused at a rate of about 4 to 6 drops (0.25 cc.) per minute.

When administered by the intermittent intramuscular injection technic, the total volume of the individual injections should be small. The concentration should range from 10,000 to 50,000 units per cubic centimeter of solution; and, although sterile normal salt solution is usually suggested as the solvent, sterile distilled water is probably used more frequently. The dosage will vary from one patient to another depending on the type and the severity of the infection, but in most cases a minimum of 100,000 units daily will be required.

Efforts to prolong the therapeutic action have taken the form of retarding excretion or diminishing the rate of absorption. Excretory blockade has been effected by the simultaneous intramuscular injection of diodrast or para-amino hippuric acid, resulting in a lessened excretion of penicillin by the kidney and consequent longer maintenance of adequate blood levels. To diminish the rate of absorption the penicillin has been incorporated into a beeswax and peanut oil vehicle. This mixture causes adequate blood levels to be maintained for six to eight hours after a single intramuscular injection. Chilling the site by ice packs for two hours preceding the injection and for about 6 hours after the administration has enabled adequate blood levels to be maintained for 8 to 10 hours after a single injection of an aqueous solution of the penicillin. Vasoconstrictor drugs have been administered with the penicillin solution for the purpose of delaying absorption with good results.

When a local high concentration of penicillin in an extremity is desired, the intra-arterial route may be employed. The injected penicillin is restricted to the extremity by the inflation of a previously applied blood pressure cuff to well above the existing systolic blood pressure immediately after the injection of the antibiotic solution. The pressure is maintained for about ten minutes and then released. Ten cubic centimeters of normal salt solution containing 50,000 units has been injected at each dose.

It is necessary to administer the drug intrathecally in order to secure therapeutically effective levels of penicillin in the cerebrospinal fluid. When so administered it is suggested that 10,000 units per day be employed in a solution containing 1,000 units per cc., normal salt solution being the vehicle. Penicillin in isotonic sodium chloride is injected directly into an empyema cavity after aspiration of the pus or fluid.

Satisfactory blood levels have been obtained following the inhalation of nebulized penicillin solutions, and not long ago there appeared a report of the use of penicillin in a cocoa-butter base rectal suppository with which prolonged, effective blood levels were secured.

That satisfactory therapeutic blood levels may be secured by oral administration is well attested by the large number of reports that have been appearing during the past few weeks. To secure adequate blood levels, it is necessary to use large doses; in general, about two and one-half to five times the amount of penicillin is required per day as when it is administered parenterally. The therapeutic results secured have been satisfactory whether the penicillin is administered in plain water, saline solution, or buffering agent; or in solid form such as a tablet or capsule. The most effective blood levels are secured when the agent is administered during a fast or when a light, nonstimulating diet is being taken. When it is desired to administer penicillin orally over several days, the mealtime schedule should be arranged so that the taking of food never coincides with the taking of an oral dose of penicillin.

Penicillin has been employed rather extensively as a topical application with ample evidence that the antibiotic exerts its effect at the site of application. The troches, ointments and the solutions used as applications, irrigations, drops or instillations indicate the diversity of form in which it may be used topically.

REFERENCES

1. Keefer, C. S.; Herwick, R. P.; VanWinkle, W., Jr., and Putnam, L. E.: J.A.M.A., 128:1161 (August 18) 1945.

2. Rammelkamp, C. H., and Keefer, C. S.: J. Clin. Investigation, 22:649 (Sept.) 1943.

* * *

BENEFITS OF SURGERY FOR CERTAIN TYPES OF HYPERTENSION

Medical science is gradually accumulating more and more evidence to show the effectiveness of surgery for certain types of hypertension or high blood pressure.

Two physicians, writing in the February 23 issue of The Journal of the American Medical Association, state that while surgery seldom brings about a cure for high blood pressure, "it has given remarkable benefit, and prolonged the life of many hypertensive patients."

Max M. Peet, M.D., of Ann Arbor, Mich., and Emil M. Isberg, M.D., of Miami Beach, Fla., review the results of 1,500 operations at the University of Michigan Hospital, and conclude: "No form of medical therapy has yet been shown to be as efficacious as surgical treatment in arresting the pernicious, progressive character of hypertensive disease, promoting improvement and increasing life span."

High blood pressure is one of the most common and most serious conditions that American physisians are required to treat. As a common cause of death—particularly among middle-aged business and professional men—hypertension outranks even cancer and tuberculosis.

The tightening and narrowing of the blood vessels which accompany hypertension seem to start in the kidneys. Apparently this narrowing is brought about by some impulse transmitted over the sympathetic nervous system which regulates the involuntary organs of the body. The treatment, therefore, of hypertension by operation on the sympathetic nervous system is aimed at halting these nerve impulses.

The report of Drs. Peet and Isberg concerns only those cases called "essential hypertension." This term is applied to high blood pressure which cannot be attributed to any known disease.

The physicians stress the fact that surgery is not beneficial in all types of high blood pressure.

"The patient whose hypertensive state has not yet progressed to evident involvement of the heart, cerebral arteries or kidneys stands an excellent chance for prolonged blood pressure reduction from surgical treatment," the doctors say, adding: "It is well known that there is a group of persons who tolerate essential hypertension exceedingly well. They live out a normal life span without any symptoms or complicating accidents of hypertensive disease."

Of the 1,500 patients who received surgical treatment for essential hypertension at the University Hospital, the doctors were able to obtain follow-up data on 437 through periodic visits and reexamination.

Two hundred and fifty-one patients, or 57.5 per cent, are living five to 11 years after operation. At the end of five post-operative years 64.8 per cent of the entire series was alive.

Fifty-six per cent of all the males have died, while the female mortality was only 30 per cent.

Ninety-five per cent of high blood pressure patients who showed no evidence of cardiac, cerebrovascular or kidney involvement before the operation are living five to 11 years after the surgery was performed.

Approximately one third of all patients who manifested evidence of organic heart disease, cerebrovascular disease or impaired kidney function before the operation did not survive the five to 11 year period.

Fifty-one patients have maintained normal blood pressure levels and 28 show no evidence whatever of hypertensive disease for this period.

Frontal Lobotomy*

WILBUR A. MUEHLIG, M.D.
Omaha, Nebraska

Frontal lobotomy is an operation which has been developed for use in the treatment of functional mental illness. The early experiments were done by Moniz of Portugal and much of the subsequent work has been done by Freeman and Watts of Washington, D. C. This work was started about 1936 and the procedure has been rather widely used in the past year or two.

The technique as developed by Freeman and Watts consists of making a burr hole on the lateral aspect of the frontal region in the coronal suture. The white matter is then cut, using a plunt periosteal elevator, in the plane of the coronal suture. This is then repeated on the other side. A similar technique has been developed by others making the openings on the upper aspect of the skull. Local or general anesthesia may be used.

The general effect of the operation is to diminish anxiety and nervous tension. These symptoms are usually prominent parts of various types of functional mental disease, and relieving them frequently results in the immediate or subsequent disappearance of the illness. Intelligence is not measurably affected and, in fact, is usually improved because of the release from the disabling symptoms. For a time the patient is somewhat apathetic and lazy, and is inclined to be tactless. These symptoms gradually disappear in two to six months and the patient usually makes a satisfactory personality adjustment.

The chief danger in this operation is from hemorrhage, frequently occurring some time after operation. The mortality rate is from two to three per cent. About one patient in twenty will have an occasional generalized convulsion following operation which cannot be eliminated by medication. Another patient in twenty may have convulsions which are readily controlled by medication. Now and then undesirable neurological symptoms or signs develop but these are usually transient. Incontinence of urine occurs fairly frequently but ordinarily clears up in from one week to two months. It is rarely permanent.

The operation is of use in cases of involutional melancholia which have failed to respond to electric shock therapy, which relapse frequently after improving with electric shock therapy, or in which eelctric shock therapy is contraindicated.

In schizophrenia, the operation is useful in patients who have failed to respond to previous shock therapy or again, where frequent relapses have occurred. Chronic schizophrenics in whom there is little if any emotional reaction left, usually do not obtain satisfactory results. Patients showing depressive or other emotional trends or violence seem to get the most marked benefit.

In psychoneurosis, especially obsessive compulsive states, where the symptoms have been prolonged and of sufficient severity to warrant the risk involved, the operation is also advisable.

Because of the good results in involutional melancholia from the use of electric shock therapy, not many figures are available as yet in this group of cases. Freeman and Watts in their series found a very large percentage responded but the authors were using the procedure without preliminary trial of electric shock. Large series of figures are not available in psychoneurosis, but perhaps 80 to 90 per cent are benefited. In schizophrenia about 50 per cent of cases who have failed to respond to other treatment are definitely improved. Possibly 10 per cent of these are well enough to go home and make a good social adjustment. The other 40 per cent are not normal, but make a much improved adjustment either at home or in a state hospital. The other 50 per cent are not significantly improved.

After operation, favorable cases have been able to return to jobs of considerable complexity, such as drafting, practice of law, and teaching.

Generally speaking the operation seems to have promise for further and broader use in the future. It is taking its place in the group of treatments for functional mental illness.

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*Read before the Omaha-Midwest Clinical Society, October, 1945.

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THE PLATFORM OF THE AMERICAN MEDICAL ASSOCIATION

The American Medical Association advocates:

1. The establishment of an agency of federal government under which shall be coordinated and administered all medical and health functions of the federal government exclusive of those of the Army and Navy.
2. The allotment of such funds as the Congress may make available to any state in actual need for the prevention of disease, the promotion of health and the care of the sick on proof of such need.
3. The principle that the care of the public health and the provision of medical service to the sick is primarily a local responsibility.
4. The development of a mechanism for meeting the needs of expansion of preventive medical services with local determination of needs and local control of administration.
5. The extension of medical care for the indigent and the medically indigent with local determination of needs and local control of administration.
6. In the extension of medical services to all the people, the utmost utilization of qualified medical and hospital facilities already established.
7. The continued development of the private practice of medicine, subject to such changes as may be necessary to maintain the quality of medical services and to increase their availability.
8. Expansion of public health and medical services consistent with the American system of democracy.

NEBRASKA STATE ANNUAL ASSEMBLY PROGRAM

Tuesday, May 7, 1946 - 9:30 a. m.

9:30 "Cancer Control Program"
—E. W. Rowe, Lincoln
—James F. Kelly, Omaha

9:45 "The Pathology of Trauma" (colored slides)
—Frank Tanner, Lincoln

10:00 Pediatric: Title to be announced
—Roger L. J. Kennedy, Mayo Foundation, Rochester, Minnesota

10:30 Presidential Address
—Chas. McMartin, Omaha

10:45 Installation of President-Elect
—Earle G. Johnson, Grand Island

11:00 Report of Program Committee
—J. E. M. Thomson, Lincoln

11:10 Necrology

11:20 "Dermatology"
—A. C. Curtis, University of Michigan, Ann Arbor, Michigan

12:30 Alumni Luncheons
—University of Nebraska
—Creighton University

Tuesday, May 7, 1946 - 2:00 p. m.

2:00 "Acute Hepatitis and Its Sequelae: Notes on Diagnosis and Treatment"
—George B. Eusterman, Mayo Clinic, Rochester, Minnesota

2:30 "Acute Intestinal Obstruction"
—Howard B. Hunt, Omaha

2:45 "Acute Intestinal Obstruction"
—Chester H. Waters, Omaha

3:00 "Visceral Manifestations of Syphilis"
—A. C. Curtis, University of Michigan, Ann Arbor, Michigan

3:30 "Acute Indigestion"
—Maurice C. Howard, Omaha

4:00 "Gastro-intestinal Allergy"
—M. H. Brodkey, Omaha

6:30 Dinner in Ballroom
Physical Fitness Program

Wednesday, May 8, 1946 - 9:30 a. m.

Symposium on Thyroid Disease

9:30 "Surgical Management of Goitre"
—George M. Curtis, Ohio State University, Columbus, Ohio

10:00 "Certain Factors in the Surgical Approach to Thyroid Disease"
—Larry P. Engle, Kansas City, Missouri

10:30 "Medical Management of Goitre"
—Floyd Rogers, Lincoln

11:00 "Analytical Survey of Goitre Management"
—Herbert Davis, Omaha

11:30 General Discussion

12:00 Luncheon in Ballroom
Round Table Discussion of "Disorders of the Spleen—Recognition and Treatment"
—George M. Curtis
—Larry P. Engle

Wednesday, May 8, 1946 - 2:00 p. m.

"Pre and Post Operative Care"

2:00 "Pre-operative Management"
—George M. Curtis, Ohio State University, Columbus, Ohio

2:30 "Post Operative Management"
—Larry P. Engle, Kansas City, Missouri

3:00 "Pre and Post Operative Management of the Urological Surgical Patient"
—Elmer Hess, Erie, Pennsylvania

3:30 "Medical Problems in the Surgical Patient"
—George B. Eusterman, Mayo Clinic, Rochester, Minnesota
Banquet—Wednesday Evening
J. E. M. Thomson, Lincoln, Presiding

6:30 Entertainment in Ballroom

Thursday, May 9, 1946 - 9:30 a. m.

9:30 "Progress in Elimination of Permanent Colostomy"
—R. Russell Best, Omaha

10:00 Veteran Rehabilitation
—A. R. Shands, Jr., Wilmington, Delaware
—Rex L. Dively, Kansas City, Missouri
—Major General Paul R. Hawley, Acting Surgeon General, Veterans Administration, Washington, D. C.

12:00 Luncheon
Round Table Discussion

Thursday, May 9, 1946 - 2:00 p. m.

2:00 "Endocrinology and Treatment of Functional Uterine Hemorrhage"
—E. C. Hamblen, Duke University, Durham, North Carolina

2:30 "Some Remarks on the Second Stage of Labor with Special Reference to the Use of Forceps"
—L. A. Calkins, Kansas City, Missouri

3:00 "Urological Complications of Pregnancy and Labor"
—Elmer Hess, Erie, Pennsylvania

3:30 "Early Ambulation in Gynecological Surgery, and in Obstetrics"
—Harley Anderson, Omaha
Adjourn

WOMAN'S AUXILIARY NEBRASKA STATE MEDICAL ASSOCIATION PROGRAM

May 7, 1946

3:30 p. m. Tea at the home of Mrs. W. W. Carveth, 3003 So. 31st St.

May 8, 1946

9:30 a. m. Executive Board Meeting, Cornhusker Hotel
1:00 p. m. Luncheon, Lincoln Country Club
2:00 p. m. Annual Business Meeting, Lincoln Country Club
4:00 p. m. Past Convention Board Meeting
7:00 p. m. Banquet, Cornhusker Hotel

ANNOUNCEMENTS

REFRESHER COURSE IN OTOLARYNGOLOGY

A one week didactic and clinical refresher course in Otolaryngology has been arranged for specialists in the field, from May 13th to 18th, 1946, inclusive. Applications for registration should include school of graduation, training and experience. Check for tuition ($50.00) should accompany the application.

In addition, a special course in Broncho-Esophagology will be given from June 3rd to 15th, 1946, inclusive. It will consist of lectures, animal and cadaver demonstrations, diagnostic and surgical clinics.

The course will be under the direction of Drs. Paul H. Holinger and Albert H. Andrews, Jr.

Tuition for this course is $100.00. Check should accompany application. Class limited to twelve physicians.

For further information address: Department of Otolaryngology, University of Illinois College of Medicine, 1853 West Polk Street, Chicago, Illinois.

AMERICAN BOARD OF OBSTETRICS AND GYNECOLOGY, INC.

The general oral and pathology examinations (Part II) for all candidates will be conducted at Chicago, Illinois, by the entire Board from Monday, May 6, through Saturday, May 11, 1946. The Palmer House in Chicago will be the headquarters for the Board. Formal notice of the exact time of each candidate's examination will be sent him several weeks in advance of the examination dates. Hotel reservations may be made by writing direct to the Palmer House.

Candidates for reexamination in Part II must make written application to the Secretary's Office not later than April 15, 1946.

Candidates in military or naval service are requested to keep the Secretary's Office informed of any change in address.

Deferment without time penalty under a waiver of our published regulations applying to civilian candidates, will be granted if a candidate in service finds it impossible to proceed with the examinations of the Board.

Applications are now being received for the 1947 examinations. For further information and application blanks, address Dr. Paul Titus, Secretary, 1015 Highland Building, Pittsburgh 6, Pennsylvania.

NEED FOR MEDICAL BOOKS IN MANILA

Some months ago the Academy-International of Medicine and Dentistry moved its executive office from St. Paul, Minnesota, to the Liberty building, Topeka, because of its central location. According to the executive secretary, Mr. J. B. Young, one of the projects of this organization is to attempt to supply the destroyed medical library at the University of Manila with sufficient books to enable the school to operate. It is well known that the Japanese destroyed the university and its library until almost no piece of usable equipment remained.

The Academy-International of Medicine is appealing to the medical profession all over Canada and the United States to donate books that may be sent to Manila. Already 10,903 individual publications are in transit and many more are needed. These books have come from individuals, from medical libraries, medical schools and clinics.

Kansas doctors are invited to assist in this worthwhile undertaking through the contribution of books, periodicals or cash. Doctors willing to donate books should first write to Academy-International of Medicine, Liberty building, Topeka, giving the names and authors and edition numbers of the books that are available. In an effort to send only material that is critically needed and to avoid duplication, all gifts should be cleared before they are sent. The donor will then be instructed which of these books are desired.

If cash is given, the donor may be assured that all money will be used for the purchase of needed texts, that arrangements have been made with leading publishers to sell books for this purpose at cost, and that they will be forwarded immediately to the School of Medicine, University of the Philippines.

Make all checks payable to Manila Library Fund, A-I-M.

U. S. PUBLIC HEALTH SERVICE

Examinations for appointments of medical officers in the Regular Corps of the United States Public Health Service will begin on April 4 at various convenient localities throughout the country, Surgeon General Thomas Parran has announced. Examinations are for appointments to fill vacancies of Assistant Surgeon (First Lieutenant) and Senior Assistant Surgeon (Captain).

Regular Corps appointments are permanent. They provide qualified doctors with opportunities for a career in one or more of a number of fields including research, general hospitals, special hospitals, foreign duty, and public health programs. Assignments are made according to careful consideration of the officers' demonstrated abilities and experiences. It is expected that doctors now leaving the armed services will find the openings of particular interest.

Entrance pay for Assistant Surgeon with dependents is $3,411 a year, and for Senior Assistant Surgeon with dependents is $3,991 a year. Promotions are at regular intervals up to and including the grade of Medical Director which corresponds to full Colonel at $7,951 a year. Retirement pay at 64 is $4,500 a year. Full medical care including disability retirement at three-fourths pay is provided. All expenses of official travel are paid by the government. Thirty days' annual leave with pay is provided.

Applicants for the grade of Assistant Surgeon must be citizens of the United States, must present diploma of graduation from recognized medical school, must have had or be in the process of completing the seventh year of college or professional training or experience since high school graduation (two years premedical, four years of medicine, one year internship), and must have a physical examination at the place of oral examination by medical officers of the Service. Applicants for the grade of Senior Assistant Surgeon must meet the above requirements and must have had four additional years of post-graduate training or experience.

Examinations will be oral and written. The written examination will be held on May 14, 15 and 16 at places convenient to the candidate and the Service. National Board grades may be used for the Assistant Surgeon examination.

Application forms may be obtained by writing to the Surgeon General, U. S. Public Health Service, Washington 25, D. C.

BOARD OF COUNCILORS

February 17, 1946

The Annual Mid-Winter Meeting of the Council was held at the Hotel Cornhusker, Lincoln, Nebraska, February 17, 1946, and was called to order at ten o'clock by Dr. Clayton Andrews, President of the Council.

The following members were present: Drs. Warren Thompson, Clayton Andrews, W. E. Shook, G. E. Peters, C. W. Way, A. A. Ashby, O. W. French, M. O. Arnold, H. S. Andrews, J. B. Redfield, Geo. W. Pugsley, President Chas. McMartin, President-elect Earle Johnson, and Immediate Past President Floyd Rogers.

Also present at the meeting were Drs. James Kelly, R. F. Decker, A. J. Offerman, D. B. Steenburg, A. L. Cooper, L. W. Rork, R. W. Fouts, J. D. McCarthy, H. M. Jahr, R. B. Adams, Geo. W. Covey, W. S. Petty, W. H. Heine, H. S. Morgan, Lucien Stark, Harry Benson, K. S. J. Hohlen, E. W. Rowe, and Mr. M. C. Smith, Executive Secretary.

The election of a President of the Council was the first order of business.

Dr. Clayton Andrews was nominated to succeed himself, and a motion was made by Dr. G. E. Peters that the nominations be closed. The motion was seconded and carried.

A motion was made by Dr. Warren Thompson that the secretary cast the unanimous ballot for Dr. Andrews as President of the Council. The motion was seconded by Dr. H. S. Andrews and carried.

The election of a Secretary of the Council was the next order of business.

Dr. C. W. Way was nominated to succeed himself, and a motion was made by Dr. W. E. Shook, seconded by Dr. H. S. Andrews, that the secretary cast the unanimous ballot of the Council for Dr. Way as Secretary. Motion carried.

The minutes of the last meeting were called for by the President.

A motion was made by Dr. Warren Thompson, seconded by Dr. G. E. Peters, that inasmuch as the minutes had been published in The Journal that we dispense with their reading. The motion carried.

Dr. H. S. Andrews suggested that a copy of the minutes of the previous meeting be included next year with the committee reports and sent to the members of the Council. Dr. R. B. Adams said the suggestion would be carried out without further motion.

The report of the Committee on Medical-Legal Advice was called for by the President and Dr. R. W. Fouts, Chairman, read this report.

A motion was made by Dr. Warren Thompson that the report be accepted and placed on file. The motion was seconded by Dr. H. S. Andrews and carried.

As an expression of respect and honor to the memory of a former member, and former Councilor, Dr. A. A. Conrad, the Council was asked to stand for a few minutes.

Dr. A. A. Ashby, Fairmont, Councilor appointed to succeed Dr. Conrad, was introduced to the Council.

Dr. R. B. Adams made the announcement that luncheon would be served in the Persian Room at 12:30 p.m.

The report of the Committee on Journal and Publication was called for by the President, and Dr. Jahr, editor, stated that there was nothing further to report than the printed copy in the hands of the Councilors.

A motion was made by Dr. Warren Thompson that the report of the Committee on Journal and Publication be accepted and published. The motion was seconded by Dr. M. O. Arnold and carried.

The report of the Secretary-Treasurer was called for and Dr. R. B. Adams stated there was nothing further to add to the printed report but that he did call the Council's attention to Exhibit C and made the statement that all withdrawals during the year were still on deposit and that according to instructions they were getting ready to make further investments.

A motion was made by Dr. H. S. Andrews, seconded by Dr. Warren Thompson, that the Secretary-Treasurer's report be approved and published. Motion carried.

Dr. Adams read a letter from the Committee on Rural Medical Service, American Medical Association, relative to the Farm Bureau Federation. As this group is opposed to compulsory federal legislation, the Council was of the opinion we should work with this group but no positive action was taken.

Dr. Adams read a letter from Dr. James Kelly, Chairman of the Cancer Committee, which asked that Mr. Smith be allowed to work with this group; however, with the idea that his work with the organization would in no way interfere with his other duties. General discussion followed and it was decided that the matter should be referred to the Board of Trustees for their decision.

The report of the Cancer Committee was called for and Dr. James Kelly stated that since the printed copy of the report was sent to the Councilors a meeting had been called by Dr. E. W. Rowe for a final organization meeting for the state cancer group and that it would be held this enening at 6:30 at the Cornhusker Hotel.

A motion was made by Dr. G. E. Peters, seconded by Dr. Geo. W. Pugsley, that the Cancer Committee report be approved and published. The motion carried.

The report of the Board of Trustees was read by Dr. Geo. W. Covey, Chairman.

A motion was made by Dr. Geo. W. Pugsley that the report be accepted and published, and that the budget, as made up by the Board, be recommended to the House of Delegates for adoption. The motion was seconded by Dr. Warren Thompson and carried.

The report of the Delegate to the North Central Conference was called for and was read by Dr. J. D. McCarthy.

A motion was made by Dr. W. E. Shook that the report be received, approved and published. The motion was seconded and carried.

Dr. H. S. Morgan read the M.C.H. report. General discussion on the EMIC, Veterans Administration, and other governmental bureaus followed. Dr. Morgan then asked for the advice of the Council in order that their committee and Mr. Vandemoer could have some yardstick by which to judge controversial cases and further discussion followed.

A recess was called by the President and dinner followed.

The meeting was again called to order by the President, Dr. Clayton Andrews.

A discussion of the M.C.H. Committee report and problems was resumed.

Dr. H. M. Jahr gave a brief dissertation on the EMIC Program and the Pepper Bill, and called attention to a survey being made by the Academy of Pediatrics, stating that the academy requested that this council go on record to support the survey.

A motion was made by Dr. O. W. French that the Council endorse the survey being made by the Academy of Pediatrics and that publication of this fact be made in The Journal. The motion was seconded and carried.

A motion was made by Dr. Warren Thompson that the report of the M.C.H. Committee be accepted, endorsed and published. The motion was seconded by Dr. Redfield and carried.

The report of the Planning Committee was called for. Dr. Floyd Rogers, Chairman, introduced Dr. A. L. Cooper who read the report of the Planning Committee. Dr. Rogers then read the report of the Pre-Payment Medical Care Committee, and next introduced Dr. A. J. Offerman who gave the financial report of Nebraska Surgical and future plans for this group.

A motion was made by Dr. H. S. Andrews that the report of the Planning Committee, which included the report of the Pre-Payment Medical Care Committee, be accepted and published. The motion was seconded and carried.

Dr. E. W. Rowe read the report of the Medical Economics Committee.

A motion was made by Dr. O. W. French that the report be approved and published. The motion was seconded by Dr. H. S. Andrews and carried.

The report of the Health Planning Committee was read by Dr. E. W. Rowe.

A motion was made by Dr. Warren Thompson, seconded by Dr. W. E. Shook, that the report be approved and published. The motion carried.

The report of the Delegation to the A.M.A. was reviewed, and a motion was made by Dr. H. S. Andrews that the report be accepted and published. The motion was seconded and carried.

The report of the Committee on Vascular and Cardiac Diseases was called for by the President, and Dr. Lucien Stark reported from the floor that he had tried hard to get papers for one edition of The Journal but because of the fact that everyone was so busy he was unable to do so, and so the committee was inactive this year.

Dr. W. S. Petty, Director of the Health Department, State Capitol, was introduced to the Council. Dr. Petty told of the recent blood plasma supply received by the Health Department from the Red Cross and explained the basis on which the plasma would be sent to the hospitals. He also discussed briefly the Hill-Burton bill, EMIC program and Pepper bill.

A motion was made by Dr. Shook that we endorse the method of distributing the blood plasma as outlined by the Health Department and so recommend to the House of Delegates. Motion was seconded by Dr. H. S. Andrews and carried.

Dr. Charles McMartin, President, was asked to address the Council. He called attention to the work to be done in developing some plan to take care of the returning veteran, and also in setting up a uniform fee schedule for use by governmental agencies.

General discussion relative to the proper procedure and proper group to do this work followed.

A motion was made by Dr. O. W. French that at the request of the President, the Planning Committee be instructed to work out a fee schedule and a fair plan for handling the affairs of medical care for returning veterans, and that this plan be communicated to the Veterans Bureau showing them we are interested and active, and if in their answer satisfactory arrangements are agreed upon, that the satisfactory plan be presented to the House of Delegates at its next meeting for their acceptance. The motion was seconded and carried.

The report of the Executive Secretary was called for by the President and was read by Mr. M. C. Smith.

A motion was made by Dr. J. B. Redfield that the report be accepted, edited, and published. Seconded by Dr. W. E. Shook and carried.

Dr. H. S. Andrews called attention to the fact he had been told there was no provision whereby a child under the age of 16 could be admitted to the state tuberculosis hospital.

A motion was made by Dr. H. S. Andrews that we suggest to the House of Delegates that they recommend to the Board of Control that a policy be adopted whereby children under the age of 16 could be admitted to the state tuberculosis hospital. Motion was seconded by Dr. W. E. Shook and carried.

The printed reports of the Tuberculosis Committee, F.S.A. Committee, Fracture Committee, and Convalescent Serum Committee, were called to the attention of the Council.

A motion was made and seconded that these reports be accepted and published. The motion carried.

Dr. Earle Johnson, President-Elect, read the committee appointments for next year.

A motion was made by Dr. H. S. Andrews to approve the suggested committee appointments as fall within the jurisdiction of this Council. The motion was seconded by Dr. W. E. Shook and carried.

Dr. Earle Johnson asked that each of the Councilors feel free to call upon him to come to their district at any time he could be of assistance; that he would be glad to help in any way he could.

Dr. R. W. Fouts discussed the Constructive Program of the American Medical Association for the Improvement of Medical Care, which plan was just completed at a recent meeting in Chicago.

Dr. A. J. Offerman answered questions relative to the Nebraska Surgical Plan.

A motion was made to adjourn. Seconded and carried.

SECRETARY'S REPORT

The year 1945, being another war year, the association was required by government order to cancel all of its Annual Assembly except the House of Delegates. This part of the meeting was held in Lincoln at the Cornhusker Hotel on May 8, 1945, and was so arranged that all the business that came before it could be finished in a one-day meeting of the two sessions.

Dr. Charles McMartin was installed as President on the first day instead of at the general sessions.

Important matters considered were:

1. The report of the Cancer Committee by the Chairman, Dr. James Kelly. He explained the new proposed program and recommended that the state association work with the American Cancer Society, helping to carry out its program. It was decided that a committee be appointed to draft resolutions to accomplish this. Dr. James Kelly, Dr. O. J. Cameron, and Dr. Lowell Dunn were appointed to this committee.

2. Report of the Planning Committee. An elaborate report was made by this committee, explaining in detail the structure and method of operation of a surgical plan, named the Nebraska Surgical Plan, which it has worked out. This plan was adopted and this surgical plan working with the Blue Cross Hospital Plan is a going concern.

3. Dr. Floyd Rogers, retiring president, reported on a meeting which he attended in Detroit, Michigan. The presidents of 17 other state associations and the District of Columbia were present. The Michigan Service Plan, national health legislation, and future radio programs, were discussed. No definite plans were made. The House of Delegates instructed our President to attend these meetings and bring back a report to the next session of the House of Delegates.

4. The House of Delegates adopted a resolution containing instructions advising our congressmen that the Nebraska State Medical Association is opposed to any increase of power being given to the Children's Bureau of the Labor Department. at least during the war period, and asking them to vote against the recommendation made by the Steering Committee from the Children's Bureau.

5. A resolution was also adopted to the effect that the Nebraska State Medical Association approve the principal of prepayment non-profit health insurance.

The year as a whole has been very successful. The Medical Economics Committee, the Planning Committee, the Medical-Legal Defense Committee, and the Cancer Committee have all done their usual splendid work. Other committees did what work there was for them to do, and still others did not function, some because there was nothing for them to do. The Program Committee had its work stopped after it had done a great deal of work. Procurement and Assignment has had a great deal of work to do, but this is becoming less and less as time goes on. Another session of the legislature was safely passed, the Journal is prosperous, and our affairs are in good shape.

During 1945 the association lost by death two as valuable members as any it ever had; namely, Dr. H. E. Potter and Dr. A. A. Conrad.

Respectfully submitted,
R. B. ADAMS, M.D.,
Secretary-Treasurer.

AUDITOR'S REPORT

Lincoln, Nebraska, January 24, 1946.

Nebraska State Medical Association,
Lincoln, Nebraska.

Gentlemen:

We have examined the books and records of the Nebraska State Medical Association for the year 1945 and submit herewith our report. Included as a part of the report are the following exhibits and schedules:

Exhibit A—Analysis of Fund Balances, January 1, 1945 to December 31, 1945.

Exhibit B—Statement of Receipts and Disbursements, Year 1945.

Schedule B-1—Comparison of General Expense with Budget, Year 1945.

Exhibit C—Statement of Investments, January 1, 1945 to December 31, 1945.

Exhibit D—Journal Accounts Receivable, December 31, 1945.

EXHIBIT A

The analysis of fund balances is presented in Exhibit A. During the year 1945 there was a decrease in the total balance of $487.41. This decrease was the result of net reductions in investments of $663.15 less an excess of receipts over disbursements of $175.74. The total balance on December 31, 1945 amounted to $24,282.09. This balance was represented by cash in the National Bank of Commerce, Lincoln, Nebraska, of $3,107.01 and investments of $21,175.08.

EXHIBIT B

The details of the change in the Operating Fund cash balance are shown in Exhibit B. In this statement the incomes and expenses have been divided into classifications of General income and Journal income. Under the heading of General income of $13,231.10 the principal item was Membership Dues of $12,375.00. The chief item of income for the Journal during the year was Advertising of $11,725.27 and the total income under this classification was $11,840.82. Total cash received during the year amounted to $25,071.92.

The disbursements of the Association are divided into the same classifications as the items of income. The total amount of disbursements under the heading of General disbursements was $11,940.03. A comparison of these items with the budget items approved for the year 1945 is shown in Schedule B-1. The Journal expense for the year amounted to $12,956.15. Total disbursements for the year were $24,896.18 and the excess of receipts over disbursements was $175.74. Cash on hand at December 31, 1945 amounted to $3,107.01.

All items of receipts for the year were traced through the books and into the bank account. In addition to this, test checks were made of letters of transmittal tracing the items to the individual members' accounts. An inspection of the unused members' cards in connection with our examination of the receipts indicated that all cards issued during the year to members were accounted for on the books of the association. During the course of this work it was found that in the year 1945 there were cards issued to two hundred twenty-four military members and thirty-one honorary members for which no dues were collected.

All cancelled checks for the year were examined and compared with the items in the check record. Invoices and creditors' statements were inspected covering the greater portion of the disbursements. Cash balances in banks were confirmed by direct correspondence with the depositories. Our audit also included an examination of the Minutes of the Trustees' Meetings during the year in regard to authorization of salaries, budgets, and other disbursements. Securities on hand at the close of the year were verified by actual examination. As a result of our audit of the receipts and disbursements of the Association for the year it is our opinion that all cash has been accounted for properly.

EXHIBIT C

The changes that occurred in the investment account during the year are shown in Exhibit C. The cost value of the investments at the beginning of the year totalled $21,838.23. During the year there was a net reduction in investments of $663.15. This reduction was the result of total reductions of $993.63 less additions of $330.48. The reductions consisted of withdrawals in savings and loan accounts of $318.04 and final liquidation payments received of $351.19. Final liquidation payments included the Wm. H. Harms investment on which there was an excess of $249.00 over the carrying value and Standard Savings and Loan Association on which there was an excess of $573.40 in carrying value over the amount received. Additions to the investments during the year included dividend credits in savings and loan accounts of $103.91, increases in value of United States Savings Bonds of $225.57 and interest accrued on postal savings of $1.00. The total value of the investments at December 31, 1945 was $21,175.08.

EXHIBIT D

A list of the Journal accounts receivable is shown as Exhibit D. An examination of the accounts receivable record indicated that these amounts are amounts receivable for advertising during the month of December, 1945. The record also indicates that these accounts are being paid currently. As the Association operates on the cash basis these items are not taken into income until cash is received.

The Student Loan Fund managed by the Association is maintained in a checking account at the Omaha National Bank, Omaha, Nebraska. Cash on hand at the close of the year amounted to $3,124.87 and this amount was confirmed by direct correspondence with the bank. The total amount of unpaid student loans at the close of the year was $1,005.87. During the year $468.17 including payment on principal and interest was received on these notes.

Mr. M. C. Smith, Executive Secretary of the Association, has in his possession a fund of $100.00 for his use to cover traveling expenses. This fund is replenished periodically upon his presentation of expense reports and has not been set up on the books of the Association as an asset.

There are additional funds of $1,000.00 in cash kept in the Association's safety deposit box at the National Bank of Commerce, Lincoln, Nebraska. This amount, which is not set up as an asset on the books, was verified by actual count at the time of the examination of the securities. The purpose of this fund is to defray expenses of the Association and to date none of it has been used.

Should any additional information be desired concerning any of the items falling within the scope of our examination we shall be pleased to supply it upon request.

Respectfully,

MARTIN & COLE.

EXHIBIT A—

NEBRASKA STATE MEDICAL ASSOCIATION
ANALYSIS OF FUND BALANCES

January 1, 1945 to December 31, 1945

Total Balance, January 1, 1945		$24,769.50
Represented by:		
Cash—National Bank of Commerce	$ 2,931.27	
Investments—Exhibit C	21,838.23	
	$24,769.50	
Deduct:		
Net Reductions in Investments — Exhibit C	663.15	
Less: Excess of Receipts over Disbursements—Exhibit B	175.74	487.41
Total Balance, December 31, 1945		$24,282.09
Represented by:		
Cash—National Bank of Commerce	3,107.01	
Investments—Exhibit C	21,175.08	
	$24,282.09	

EXHIBIT B—

NEBRASKA STATE MEDICAL ASSOCIATION
STATEMENT OF RECEIPTS AND DISBURSEMENTS

Year 1945

Cash on Hand, January 1, 1945			$ 2,931.27
Receipts:			
General:			
Membership Dues	$12,375.00		
Withdrawals—United Savings & Loan	318.04		
Standard Savings & Loan Liquidation	101.19		
Wm. H. Harms liquidation	250.00		
Interested Collected	182.05		
Nebraska Surgical Plan—Addressing Envelops	4.82	$13,231.10	
Journal:			
Advertising	11,725.27		
Subscriptions	109.25		
Copies Sold	6.30	11,840.82	
TOTAL RECEIPTS		$25,071.92	
Disbursements:			
General:			
Salaries	7,220.00		
Travel	991.94		
Office Expense:			
Rent	700.27		
Telephone and Telegraph	538.34		
Printing	132.68		
Postage	228.72		
Mimeograph	25.09		
Miscellaneous	230.22		
Councilor Expense	142.32		
Delegate to A.M.A.	167.08		
Committee Expense	123.83		
Audit Expense	125.00		
Medico-Legal	600.00		
Attorney Fees	162.82		
President's Expense	62.66		
Office Equipment	15.00		
Dr. Jahr's A.M.A. Expense, Emergency Fund	64.63		
Annual Session	409.43	11,940.03	
Journal:			
Salaries	1,440.00		
Commissions	3,949.45		
Publication Expense	5,485.27		
Envelopes and Inserts	255.75		
Press Clipping Service	60.00		
Color	1,071.50		
Tipping	440.45		
Cuts	53.73		
Miscellaneous	200.00	12,956.15	
TOTAL DISBURSEMENTS		$24,896.18	
EXCESS OF RECEIPTS OVER DISBURSEMENTS			$ 175.74
CASH ON HAND, DECEMBER 31, 1945			$ 3,107.01

SCHEDULE B-1—

NEBRASKA STATE MEDICAL ASSOCIATION
COMPARISON OF GENERAL EXPENSE WITH BUDGET

Year 1945

	Budget	Actual Expense	Unexpended Balance
Salaries	$ 7,500.00	$ 7,220.00	$ 280.00
Travel	1,000.00	991.94	8.06
Office Expense:			
Rent	725.00	700.27	24.73
Mimeograph	200.00	25.09	174.91
Printing	350.00	132.68	217.32
Postage	350.00	228.72	121.28
Telephone and Telegraph	575.00	538.34	36.66
Miscellaneous	250.00	230.22	19.78
Councilor Expense	200.00	142.32	57.68
Delegate to A.M.A.	200.00	167.08	32.92
Annual Session	1,500.00	409.43	1,090.57
Committee Expense	125.00	123.83	1.17
Audit	125.00	125.00	--------
Medico-legal	800.00	600.00	200.00
Emergency Fund	650.00	64.63	585.37
Attorney Fees	1,000.00	162.82	837.18
Office Equipment	200.00	15.00	185.00
President's Expense	500.00	62.66	437.34
	$16,250.00	$11,940.03	$ 4,309.97

EXHIBIT C—

NEBRASKA STATE MEDICAL ASSOCIATION
STATEMENT OF INVESTMENTS

January 1, 1945 to December 31, 1945

Total Balance, January 1, 1945				$21,838.23
Consisting of:				
Wm. H. Harms Loan Peters Trust Company 6%—Face Value $1,000.00			$ 1.00	
Omaha Loan and Building Association			1,630.35	
Nebraska Central Building and Loan Association			876.16	
Conservative Savings and Loan Association			1,402.42	
United States Savings and Loan Association			1,113.11	
Standard Savings and Loan Association			674.59	
U. S. Treasury Bonds, 2¾%			400.00	
U. S. Treasury Bonds, 2⅞%			4,500.00	
U. S. Treasury Bonds, 3%			500.00	
U. S. Treasury Bonds, 3⅛%			150.00	
U. S. Savings Bonds — Issue Price $8,677.25—Maturity Value $11,650.00			9,435.60	
U. S. Savings Bonds—Series G			1,100.00	
Postal Savings Bond—Issue Price $50.00			55.00	
			$21,838.23	
Reductions:				
Withdrawals:				
United Savings & Loan Asociation		$318.04		
Final Liquidations Payments:				
Wm. H. Harms—Peters Trust Co.	$250.00			
Less: Amount Received in Excess of Carrying Value	249.00	1.00		
Standard Savings and Loan Assn.	101.19			
Plus: Carrying Value in Excess of Amount Received	573.40	674.59	993.63	
Additions:				
Dividend Credits:				
Omaha Loan and Building Assn.	49.26			
Conservative Savings & Loan Assn.	28.18			
Nebraska Central Building and Loan Assn.	26.47	103.91		
Increment in Value — United States Savings Bonds:				
Total Increment, December 31, 1945	983.92			
Total Increment, December 31, 1944	758.35	225.57		
Interest Accrued—Postal Savings:				
Interest Accrued, December 31, 1945	6.00			
Interest Accrued, December 31, 1944	5.00	1.00	330.48	
Net Reductions				663.15
Total Balance, December 31, 1945				$21,175.08

Consisting of:

Omaha Loan and Building Association	$ 1,679.61
Nebraska Central Building and Loan Association	902.63
Conservative Savings and Loan Association	1,430.60
United Savings and Loan Association	795.07
U. S. Treasury Bonds 2¾%	400.00
U. S. Treasury Bonds 2⅞%	4,500.00
U. S. Treasury Bonds 3%	500.00

U. S. Treasury Bonds 3⅛%	150.00
U. S. Savings Bonds—Issue Price $8,677.25— Maturity Value $11,650.00	9,661.17
U. S. Savings Bonds—Series G	1,100.00
Postal Savings Bond—Issue Price $50.00	56.00
	$21,175.08

EXHIBIT D—

NEBRASKA STATE MEDICAL ASSOCIATION JOURNAL ACCOUNTS RECEIVABLE

December 31, 1945

Advertising Space:		
Balyeat Hay Fever and Asthma Clinic		$ 12.00
Coca Cola Company		14.40
Cooperative Medical Advertising Bureau:		
Mead Johnson and Company	$75.00	
Parke, Davis and Company	68.67	
Philip Morris	20.40	
Wyeth, Inc.	40.00	
Winthrop Chemical Company	20.00	
Ciba	85.00	
Burroughs Wellcome Company	40.80	
Upjohn	20.00	
Camel Cigarettes	20.40	
S. H. Camp	20.00	
Julius Schmid	20.00	
Schenley Laboratories	20.00	
Eli Lilly	80.00	
M & R	20.00	
Cook County Graduate School	7.00	
Spencer, Inc.	12.00	
Commercial Solvents	23.46	
Physicians Casualty Company	7.00	
Quincy X-ray Corporation	4.08	
Seiler Surgical Company	4.00	
Laboratory of Clinical Pathology	7.00	
Physicians Optical Company	4.00	
Smith-Dorsey Company	22.00	
Schieffelin and Company	12.00	
Ralph Sanitorium	7.00	
Ayerst, McKenna and Harrison	37.40	701.21
Lincoln Splint and Brace Shop		3.25
		$ 730.86

REPORT OF BOARD OF TRUSTEES

The Board of Trustees respectfully submits the following report of its activities for the year 1945, together with its recommendations on the proposed budget for the year 1947.

During the year one of the most faithful and active members resigned from the Board because of being chosen as the President-Elect of our association. His resignation is not a total loss since in his position of wider responsibility he remains a member, ex-officio, of the Board of Trustees. Also. he was replaced by a man of equally keen business and professional acuity, Donald B. Steenburg.

The Board met according to the laws of the association and transacted all business which came before it for consideration. Reference to the report of the auditors will show that your association has been able to carry on its activities well within the budget established by the House of Delegates. Our investments remain essentially unchanged. During the year the Standard Savings and Loan Association liquidated its account with a loss to us of $573.40 and its payment of $101.19 was placed in the cash account. On the other hand, the Harms loan, which has long been considered worthless and carried at $1.00, was paid according to instructions of the court. Our portion was $250.00 which amounted to 25 per cent of the face value of the note.

During the year the question was raised on several occasions as to the advisability of hiring an attorney on retainer fee. Your board finally decided that we would not retain an attorney unless an occasion should arise requiring the service of a lawyer for some specific reason.

These items constitute the only business aside from what may be considered as routine which came before us during 1945.

The following budget has been set up by us for your consideration and recommendation to the House of Delegates for the year 1947:

Salaries	$ 7,500.00
Travel	1,000.00
Office Expense:	
Rent	750.00
Mimeograph	200.00
Printing	350.00
Postage	350.00
Telephone and Telegraph	550.00
Miscellaneous	200.00
Council Expense	200.00
Delegate to A.M.A., Editor and February Meetings	300.00
Annual Session	2,500.00
Committee Expense	125.00
Audit Expense	125.00
Dues, Share to Journal	1,750.00
Medico-Legal	800.00
Emergency Fund	1,000.00
Attorney's Fees	1,000.00
Office Equipment	200.00
President's Expense	500.00
Total	$19,400.00

The increase in this budget over that of the previous years is largely accounted for by the increased amount set aside for the Annual Sessions and the addition of the President's expense account. In the past few years we have placed in the budget a relatively small item for the Annual Assembly to be used as a balancing account. The annual income and expense for the session has been handled in a separate account and after all expenses were paid the gain or loss was then taken into consideration in the general accounting. This was an easy way to handle the funds but after considerable discussion the board and Mr. Smith concluded that it was not a good business practice. We, therefore, decided to handle the entire funds for the Assembly through the general accounting and budget. It was necessary, then, to raise this item in the budget since it must anticipate the increased income and expense covering the meeting. The anticipated income from the 1946 Assembly approximates the amount we have placed in the budget for 1947, since we have no reason to believe it will decrease in the future. It is the policy of the Board to spend the entire income of the meeting for its operation and this relatively large expenditure may be considered as costing the members almost nothing. It is pleasing to note that, largely through the business foresight of our Executive Secretary, we can now spend more than four times the amount for our Assembly than in years past and yet have it actually cost us less.

Respectfully submitted,

GEORGE W. COVEY,
Chairman.

FRACTURE COMMITTEE

In making a report for the Fracture Committee, during the last year unfortunately very little interest could be aroused in behalf of fractures. But I am sure that with young men who have been active in the participation of the last war coming back, we will find new interest in the fracture care and treatment.

I look forward to a productive year from this committee.

Sincerely,

J. E. M. THOMSON, M.D.,
Chairman.

REPORT OF DELEGATES TO A.M.A.

The undersigned, as one of your delegates to the American Medical Association, wishes to report to you on the meeting held in Chicago, December 3 to 7, 1945.

Both delegates attended the meeting and were present at all sessions. Also present from Nebraska were President McMartin, President-elect Earle Johnson, the Executive Secretary M. C. Smith, Dr. J. D. McCarthy, Dr. Harold Morgan, Dr. A. J. Offerman, and Dr. Herman Jahr.

The proceedings of the House of Delegates have been published in detail in the Journal of the American Medical Association issues of December 15 and 22, 1945, and, therefore, this report will be brief. Your delegates urgently and respectfully request that you read these proceedings. They are full of information and useful to each member in discussing present day problems. The editorial pages of our own Nebraska State Medical Journal give an excellent picture of recent meeting held in Chicago.

Dr. George R. Minot was awarded the Distinguished Service Award. Dr. H. H. Shoulders, Speaker, was elevated to President-elect. Nebraska was honored by having one of its delegates, Dr. R. W. Fouts, who had been Vice Speaker, elevated to Speaker. Dr. Olin West was again re-elected as Secretary and he was also honored at the dinner, given for the members of the House of Delegates, by being presented with a painting of Quanah Parker, the last Chief of the Comanche Tribe, painted by Carl Sweezy. This mark of respect was made to Dr. West by the Oklahoma Medical Association.

The air was full of discussion on the question of health insurance and I believe a happy solution has been found in voluntary prepaid health insurance as outlined by the House of Delegates and its Committee on Public Service and Relations.

The list of the officers, committees, and proceedings can be read in the Journal.

Respectfully submitted,

K. S. J. HOHLEN, M.D.,
Delegate.

REPORT OF THE EDITOR

The year 1945 was one of the most crucial years for state medical journals. With the cancellation of Annual Sessions, the many younger physicians in the service, the practitioners at home overworked with their practices and their heavy teaching schedules, it was extremely difficult to obtain manuscripts for publication. In Nebraska, the Omaha Mid-West Clinical Society again came to the rescue. I wish here to express my personal thanks and gratitude to the organization. Without its aid the position of the Journal would have been most embarrassing.

The shortage of scientific papers was well balanced by customary good quality and by an increasing amount of copy in the Editorial Section. Copy supplied by the Council on Medical Service and Public Relations of the American Medical Association occupied many column inches of space, as did also the releases from the Surgeon General's office. The material from these sources carries not only interest but also practical implications in that they help to keep the reader acquainted with what is going on in the field of medical economics and military medicine.

What with the pending Annual Sessions of our own association, the return of many of our colleagues who are in the habit of writing papers, and the relief of the teaching load for some of us, we expect that material will be flowing in at a steady pace. Several articles by ex-service men have already been published, or are in publication at the present time, We may look to a larger and better Journal as we progress.

The cooperation of the Executive Office of our Association and of the publishers has been as usual, everything that may be desired.

HERMAN M. JAHR, M.D.,
Editor.

INDUSTRIAL HEALTH COMMITTEE

Our committee has talked over Industrial Health matters, but we have no definite report or recommendations to be made at this time.

Sincerely,

EARL A. CONNOLLY, M.D.,
Chairman.

REPORT OF THE PLANNING COMMITTEE

During July of 1945 our President requested the Planning Committee to consider the problem of the reestablishment in practice of our members then in military service and to take reasonable steps to aid them in their reestablishment. A questionnaire was sent to all of the members of our association then in service. From 47 returned questionnaires the following summary was made: First, only one of the 47 intended to remain in military service. Second, thirty-eight intended to return to their former locations; nine desired a change of location. Of these nine, there was in most instances a desire to go into specialties and to move to larger centers. In a few instances there was the desire to move to other states. Third, twenty-four desired no further medical training. Twenty-three desired further medical training. Of those, eighteen wanted refresher courses in a variety of subjects; five wanted more prolonged training varying from one to three years. In general, training was desired by the younger men who have been out of school only for a short time. Fourth, in response to the question, "In what ways can your State Association be of assistance in reestablishing you in civilian life?", in order of frequency the requests were—first, get us out of military service; second, information as to refresher courses and other types of further medical training; third, by providing information as to possible locations.

In response to this information we first called the attention of our representative in Washington to the above expressed desires and emphasized the then existing disproportion (this was in September) which existed between the number of men in military service and the number of medical men in military service to the general population and the number of medical men not in military service. This information in one way or another was called to the attention of the press and numerous articles appeared in various newspapers. Second, all requests for information as to further training were referred to both Deans of our medical schools and in a number of instances other information was provided in regard to post-graduate training. Third, an effort was made to evaluate the medical needs of the state with the idea of learning of possible locations for returning medical men. In order to do this, another questionnaire was sent to all members of our state association who are in practice. From these questionnaires we learned that first, a number of men in practice wanted partners, or assistants, or associates. Second, that many, in fact most sections of our state were badly in need of physicians. Also, it appeared that the number of men returning from military service would not be of sufficient number to provide fully for the needs of the state.

A follow-up letter was then sent to all physicians who suggested possible locations for returning physicians. This letter requested more detailed and complete information. From these sources, and others, each town in the state has been tabulated in regard to its size, location, and other general information. Further information in regard to towns which seem to need physicians most was obtained. This included information in regard to the type of people, the predominant religion, hospital facilities, schools, size of trade territory, number and kinds of business in the town and other pertinent information. Since early in November this information has not been disseminated widely, as we have had a feeling that it was our duty to relocate our own returning men first. Accurate records as to the number of people using this information have not been kept. However, a number of partners, assistants, and associates have been located through our office. I am informed by our secretary that from one to four or five men returning from service avail themselves of this information daily. The Committee feels that a very large amount of the credit for this effort should go to our secretary, Mr. M. C. Smith. While the Committee worked out the general plan, its success has been to a large extent due to Mr. Smith's careful tabulation and his ability to use this information for the benefit of the returning doctors and the state as a whole.

Respectfully submitted,

F. L. ROGERS, M.D., Chairman,
MORRIS NIELSEN, M.D.,
ALBERT COOPER, M.D.,
DONALD STEENBURG, M.D.,
ARTHUR OFFERMAN, M.D.

REPORT OF THE PRE-PAYMENT MEDICAL CARE COMMITTEE

As an introduction to our report we desire to quote the recommendations of the Planning Committee to the 1945 House of Delegates. These recommendations were adopted by the House of Delegates and are the basis for this Committee and this report.

"The Planning Committee recommends to the 1945 House of Delegates the following: That the Nebraska State Medical Association ally itself with and approve the Nebraska Surgical Plan with the understanding that this plan is to become a statewide plan. A Pre-Payment Medical Care Committee for the Nebraska State Medical Association shall be appointed in the usual manner. This Committee shall act as a liaison committee between the State Association and the Nebraska Surgical Plan. It shall keep informed in regard to all activities of the Nebraska Surgical Plan. It shall make an annual report to the Council and House of Delegates as to the past and anticipated activities of the Nebraska Surgical Plan. The House shall then annually approve or disapprove the action of the Nebraska Surgical Plan and shall, through its Pre-Payment Medical Care Committee, make recommendations to the directors of the Nebraska Surgical Plan for future action and policy of the Nebraska Surgical Plan. The House of Delegates will present the names of the desired directors elect to the Nominating Committee of the Nebraska Surgical Plan. It is specifically understood that the directors of the Nebraska Surgical Plan will be sensitive to suggestions and advice of the House of Delegates and the Pre-Payment Medical Care Committee. The Board of Directors of the Nebraska Surgical Plan will be enlarged from nine to twelve this year by the election to the Board those directors elect delegated by the House of Delegates. The Directors of the Nebraska Surgical Plan will be increased annually so that all parts of the state will have representation on the Board. The maximum number of directors will be twenty-one. An Executive Committee will be appointed by the Directors of Nebraska Surgical Plan to function between meetings of the board. Members of the Nebraska State Medical Association will be given an opportunity to participate in the financing of the Nebraska Surgical Plan by the purchase of 4% surplus notes in the amount of $100.00 each. It is estimated that an additional nine thousand dollars will be needed to extend the Plan state-wide. Each county medical society should appoint a Pre-Payment Medical Care Committee of three members to cooperate in the state-wide extension and operation of the Nebraska Surgical Plan."

Since this action by the House of Delegates, our points mentioned in the recommendations have been carried out. These are as follows: The Nebraska Surgical Plan has been made state-wide. This Committee has been represented in all meetings of the Board of Directors and Executive Committee of the Nebraska Surgical Plan and has been informed in regard to all actions anticipated or carried out by Nebraska Surgical Plan. The Board of Directors of Nebraska Surgical Plan has been enlarged from nine to twelve, the new members being Dr. G. L. Pinney of Hastings, Nebraska, Dr. F. L. Rogers of Lincoln, Nebraska, and Mr. Walker Battey of Lincoln, Nebraska. Members of the Nebraska State Medical Association were given an opportunity to purchase a limited number of 4% surplus notes in the amount of one hundred dollars each. These were subscribed in the amount needed by spontaneous request of many members of our association.

There remains that this Committee shall report to the Council, to the House of Delegates; that this Committee make recommendations to the Nebraska Surgical Plan as to future action and policy; also, that the House of Delegates present names of desired directors elect.

Attached is the Nebraska Surgical Plan's December 31, 1945 report as to cash receipts and disbursements together with other information in regard to Nebraska Surgical Plan.

This Committee has been much interested in the problem of Pre-Payment for Medical Care Plans in other states and particularly interested in the relationship which would evolve between such state's plans and the American Medical Association. The Council on Medical Service and Public Relations of the American Medical Association called for a meeting of many interested in this problem during the last of November. Our President requested Dr. Offerman and Dr. Floyd Rogers to attend this meeting.

Our impressions might briefly be summarized as follows: First, representatives from all parts of the country feel that there is great likelihood of the enactment of national laws which will lead to some form of state or social medicine. This feeling is greatly enhanced by President Truman's message to Congress a few months ago. Second, there existed a uniformity of feeling that our best and only answer to this problem is to provide the people with some type of Pre-Payment for Medical Care program. Third, that these plans would have to be put into operation by the doctors and controlled by the doctors rather than being delegated to new or existing insurance companies. Fourth, that plans would have to start on a safe basis; that is, indemnity plans for limited care and that these plans would in all probability not be wide enough in their scope to satisfy the demands of the government and people; consequently, that these plans should as soon as possible be put on at least a partial service basis, that they would have to be broadened in their scope to include not only surgery and obstetrics and a limited amount of x-rays but also in-hospital medical care, immunization and possibly other services. Fifth, that these plans should cooperate with Blue Cross. Sixth, that with the development of numerous state plans there arose the necessity of a coordinating mechanism. Several large companies with employees scattered over the nation are desirous of covering these employees. The difficulties of doing business with the numerous state plans is readily apparent. Also, numerous states in the union are not in a position to immediately set up plans.

This meeting drew up a set of resolutions which were sent on to the House of Delegates of the A.M.A. The House of Delegates considered this problem at their recent meeting in Chicago. They acted to set up within the A.M.A. through the Council on Medical Service and Public Relations an office for the purpose of correlating and standardizing the existing state plans as well as aiding those states not now having plans in their establishment of plans.

This committee will recommend to the House of Delegates the following: First, that it give its annual approval to the Nebraska Surgical Plan. Second, we recommend to the Nebraska Surgical Plan that they cooperate with other state plans and especially through the Council on Medical Service and Public Relations of the A.M.A. Third, we recommend to the Nebraska Surgical Plan an aggressive attitude in regard to the selling of certificates and recommend that as soon as their judgment permits, that wider benefits be provided and that an effort be made to provide in-as-far as possible service rather than indemnity. Fourth, that Nebraska Surgical Plan consider the possibility of providing the Veteran's Administration with out-patient service.

NEBRASKA SURGICAL PLAN CASH RECEIPTS AND DISBURSEMENTS

December 31, 1945

Cash on hand, December 1, 1945		$18,572.06
Receipts:		
From dues	$5,836.25	
From enrollment fees	470.00	
Taxes deducted from salaries	16.90	
Refund, Insurance (Bonds)	17.92	6,341.07
		$24,913.13
Disbursements:		
Administrative expense	539.80	
Claims paid	931.00	
Salary, Executive Director	150.00	
Salary, Stenographer	100.00	
Secretary's fee	25.00	
Advertising	103.66	
Printing and stationery	60.65	
Attorney	40.00	
Refunds	23.00	
Exchange	----	
Home office travel and expense	62.34	
Collection expense	----	
Taxes paid	----	
Postage	25.20	
Medical Adviser	30.00	2,090.65
CASH ON HAND, DECEMBER 31, 1945		$22,822.48
BANK BALANCE, DECEMBER 31, 1945		$22,822.48

NEBRASKA SURGICAL PLAN BALANCE SHEET

December 31, 1945

Assets:			
Cash in bank		$22,822.48	
Premiums in process of collection		-----	
U. S. Bonds (Redemption value)		10,035.55	
Prepaid insurance premiums		162.92	
			$33,020.95
Liabilities:			
Accounts payable, Blue Cross		660.25	
Accounts payable, monthly invoices		191.20	
Accrued payroll taxes		55.50	
Claims payable		600.00	
Accrued audit expense		425.00	
Unearned premiums		7,367.83	
		9,299.78	
Subscribers 4% Surplus Notes	$19,450.00		
Net Income to date	4,271.17		
		$23,721.17	
			$33,020.95

Interest on Subscribers 4% Surplus Notes__$ 828.96
(Not included in above as there is no liability as yet).

NEBRASKA SURGICAL PLAN INCOME AND EXPENSES

December 31, 1945

	December 1945	12 Months to date
Income:		
From dues	$ 3,301.25	$19,684.23
From enrollment fees	470.00	2,802.00
Increment U. S. Bonds	27.05	27.05
	$ 3,798.30	$22,513.28
Expenses:		
Claims	1,531.00	6,688.50
Salary, Executive Director	150.00	1,300.00
Salary, Stenographer	100.00	1,190.20
Legal	40.00	480.00
Auditing	25.00	466.67
Advertising	115.50	814.47
Printing	78.20	833.36
Stationery	----	38.25
Insurance	18.08	127.44
Administrative expense	660.25	3,936.84
Home office travel and expense	62.34	195.15
Secretary's fee	25.00	275.00
Collection expense	----	11.04
Taxes and licenses	2.50	64.39
Miscellaneous	----	35.85
Postage	25.20	86.55
Dues	----	3.75
Medical Adviser	30.00	30.00
	$ 2,863.07	$16,577.46
NET INCOME	$ 3,798.30	$22,513.28
NET EXPENSES	2,863.07	16,577.46
NET GAIN	$ 935.23	$ 5,935.82

Interest on 4% Surplus Notes left out as follows:
December __________$ 64.83
To date __________$696.99
(Not an expense as yet).

SURGICAL ENROLLMENT AS OF DECEMBER 31, 1945

1. No. of groups now enrolled__________ 218
2. No. of groups added during December__________ 27
3. Total number of enrollees:
   Subscribers, 2,705; Dependents, 2,874; Total, 5,579
4. Loss and gain of enrollees during December:

Additions:	
Subscribers	325
Dependents	519
	844
Cancellations:	
Subscribers	26
Dependents	24
	50
5. Members enrolled by salesman:	
M. W. Ashton (outstate)	197
W. V. Jones (Omaha)	49
B. R. Lohnes (Omaha)	7
G. S. Malone (outstate)	59
Office	13
	325

GROUPS ENROLLED BY TOWNS DURING DECEMBER, 1945

OMAHA—Snell Sash and Door Company, Koley Plating Company, Simpson Insulation Company, Pratt School of Individual Instruction.

LINCOLN—First Federal Savings and Loan Company, Soil Conservation Service, A.B.C. Electric Company.

MINATARE—Lake Minatare Women's Club.

GERING—Andrews Insurance Agency, Gentry and Gentry, Beauty Girl Creamery, Masek Auto Supply, Gering Courier.

SCOTTSBLUFF—J. C. Penney Company, Standard Hardware Company, Cook Packing Company, Hall's Texaco Service, Sinclair Bulk Plant, Mode O'Day Shop, S. B. News Stand, Securities Credit Corporation, Western Grill, Tri-State Roofing Company, Sam McCaffree, Raymond Brothers Clarke Company, Kelly's Castle, Independent Plumbing Company.

NEBRASKA SURGICAL PLAN

On February 14, 1946, the Trustees of the American Medical Association decided to put the full weight and influence of organized medicine behind the Pre-payment Medical Care Plans. They authorized the employing of a full-time Director to take the leadership in approving plans, extending plans into states where plans do not now exist, coordinating plans, and developing reciprocal relations and national enrollment.

The Trustees reiterated and emphasized the fact that the responsibility for the success of the Pre-payment Medical Care Plans rests on the County and State Societies.

The new independent corporation, Associated Medical Care Plans, Inc., will be the vehicle which will carry the load of developing, coordinating, and extending the plans; and will join all the plans into a national organization for their mutual benefit. For information on enrollment types of service that can be offered, actuarial information, and other important statistical data, $50,000 was appropriated as an initial effort.

At a meeting of the Board of Directors of Nebraska Surgical Plan on February 25, 1946, it was voted to add "In Hospital Medical Care" to the Surgical-Maternity contract now offered. This new service would indemnify a member or dependent in the amount of $3.00 per day, up to twenty-one days a year, for in hospital medical care. It also provides for diagnostic X-rays, Electrocardiograph, and Basal Metabolism Tests.

The schedule of indemnities was also revised upward to remove certain inequalities in the fee schedule. The Directors of Nebraska Surgical Plan now feel that the schedule of indemnities is adequate so that the indemnities may be accepted as payment in full for services rendered to members of the low income groups.

Copies of the "In Hospital Medical Care Plan" and the new schedule of Indemnities will be supplied the members of the Nebraska State Medical Association as soon as they can be printed.

ARTHUR J. OFFERMAN,
President Nebr. Surgical Plan.

NEBRASKA SURGICAL PLAN
CASH RECEIPTS AND DISBURSEMENTS

February 28, 1946

Cash on hand, February 1, 1946		$25,092.67
Receipts:		
From dues	$5,468.25	
From enrollment fees	422.00	
Taxes deducted from salaries	4.30	5,894.55
		$30,987.22
Disbursements:		
Administrative expense	721.00	
Claims paid	1,709.00	
Salary, Executive Director	150.00	
Secretary's fee	25.00	
Advertising	69.98	
Printing and stationery	92.00	
Attorney	40.00	
Refunds	34.00	
Collection expense	1.76	
Medical Adviser	30.00	2,872.74
CASH ON HAND, FEBRUARY 28, 1946		$28,114.48
BANK BALANCE, FEBRUARY 28, 1946		$28,114.48

NEBRASKA SURGICAL PLAN
BALANCE SHEET

February 28, 1946

Assets:			
Cash in bank		$28,114.48	
Premiums in process of collection		----	
U. S. Bonds (cost plus accrued interest)		10,035.55	
Prepaid insurance premiums		122.92	$38,272.95
Liabilities:			
Accounts payable, Blue Cross		911.10	
Accounts payable, monthly invoices		358.95	
Accrued payroll taxes		11.60	
Claims payable		1,300.00	
Accrued audit expense		50.00	
Unearned premiums		9,506.71	
		$12,138.36	
Subscribers 4% Surplus Notes	$19,450.00		
Net Income to date	6,684.59		
		$26,134.59	
			$38,272.95

NEBRASKA SURGICAL PLAN
INCOME AND EXPENSE

	February 1946	2 Months to date
Income:		
From dues	$ 4,555.50	$ 8,160.50
From Enrollment fees	422.00	690.00
	$ 4,977.50	$ 8,850.50
Expenses:		
Claims	1,609.00	3,694.50
Salary, Executive Director	150.00	300.00
Legal	40.00	80.00
Auditing	25.00	50.00
Advertising	129.00	198.98
Printing	229.95	321.95
Insurance	20.00	40.00
Administrative expense	911.10	1,632.10
Secretary's fee	25.00	50.00
Collection expense	1.76	2.80
Taxes and licenses	1.50	3.00
Dues	----	3.75
Medical Adviser	30.00	60.00
	$ 3,172.31	$ 6,437.08
TOTAL INCOME	$ 4,977.50	$ 8,850.50
TOTAL EXPENSE	3,172.31	6,437.08
NET GAIN	$ 1,805.19	$ 2,413.42

MEMBERSHIP SUMMARY—FEBRUARY, 1946

	Sub-scribers	De-pendents	Total
1. Membership, February 1, 1946	3,075	3,536	6,611
Additions	506	848	1,354
Cancellations	70	62	132
Net Gain	436	786	1,222
Membership, March 1, 1946	3,511	4,322	7,833
2. Number of groups now enrolled			273
3. Number of groups added during February			31
4. Members enrolled by salesmen:			
M. W. Ashton (outstate)		127	
W. V. Jones (Omaha)		114	
B. R. Lohnes (Omaha)		58	
G. S. Malone (outstate)		121	
A. S. Taylor (Omaha)		30	
Office		56	
		506	

FEBRUARY ENROLLMENT BY COMMUNITIES

OMAHA — 10 groups, 203 members: Addressograph Sales Agency, Appleman Manufacturing Company, Citizen Printing Company, City Beverage Company, Fire Department (Offutt Field), Hawkeye Casualty Company, Multigraph Sales Agency, Omar Retail Union, E. R. Squibb Company, Volunteers of America.

FALLS CITY—6 groups, 52 members: Chaney Furniture Store, Falls City Truck and Implement Company, First National Bank, Harell's Baking Company, Hinky-Dinky Store, "The Vogue."

ALLIANCE—2 groups, 16 members: Arnold Cattle Company, Guardian State Bank.

NORTH PLATTE—9 members.

NEBRASKA CITY—1 member.

LINCOLN—5 groups, 81 members: Bayard Sugar Factory, Board of Control, Fairmont Creamery, Lincoln Chamber of Commerce, Miller's Sunday School Class.

HOLDREGE — 3 groups, 20 members: Children's Christian Home, Phelps County Court House, Soil Conservation Service.

SCOTTSBLUFF—3 groups, 79 members: Dutch Flats Community, Platte Valley Clinic, Scottsbluff Sash and Door.

GRAND ISLAND—1 group, 13 members: Grand Island Rendering Company.

FREMONT—1 group, 26 members: Marshall Nurseries.

HASTINGS—1 member.

YORK—5 members.

REPORT OF EXECUTIVE SECRETARY

M. C. Smith

It is the object of the report of your executive secretary to present an over-all picture of the business operation of the association as a whole and many of its component parts. This report does not cover many of the activities, due to the fact that they are administered by committees, and these committees report on their yearly operation.

It is a pleasure to report again this year, as in years past, that the operation of your state medical association presents a satisfactory picture from a financial viewpoint. The auditor's report indicates that there was a balance of $175.74 at the end of the year, after all expenses have been paid. As a reserve, we maintain a sum sufficient for about one year's operation. This is considered sound operation for any organization similar to the Nebraska State Medical Association. At the risk of becoming trite, may we say again that this organization is a non-profit organization and that income should be spent each year for the benefit of the science of medicine and public health, and that there is no point in making any attempt to pile up profits or reserve beyond a fund which is ample to finance a full year of operation without income.

During the past year, 825 members paid $12,375.00 into the treasury as dues. This amount also financed the dues for 224 military members and 31 honorary members from whom no membership dues were required. Additional income from sources other than dues amounted to $12,696.92, or a sum slightly greater than that from dues. Total income for the past year was $25,071.92. Total expenditures for the year amounted to $24,896.18. Reduced to a basis of unit expenditure, we find that during the past year approximately $30.20 was spent for each individual dues paying member for the $15.00 dues which he paid for membership. The cost of producing the journal during the past year was greater than the amount received in dues from members.

LEGISLATIVE

The Nebraska Unicameral Legislature had just met and organized at the time of the meeting of the Council last year, and it was impossible to give any detailed report as to legislation. Many of the events of that session should be of interest to every member of the Nebraska State Medical Association. It was assumed that the passage of L.B. 139 in the previous session, since it was approved by all interested groups, would solve medical practice problems in Nebraska for a long time to come. This assumption was a false one, as was learned early in the session when the bills started to drop, coming from the same groups who have previously attempted to expand their field of practice by legislative action, rather than by qualifications. Senator Garber, of Webster, was the leading proponent of legislation which would lower medical standards in the state. He was ably assisted in the introduction of such bills by Heiliger, of Lancaster, and Hubka, of Gage.

A bill was introduced by Garber, of Webster, and Heiliger, of Lancaster, which would add two osteopaths to the Medical Examining Board, thus diluting the present medical board to the status of a composite board. This bill was killed in committee and no attempt was made to raise it on the floor.

Garber, of Webster, also introduced the perennial chiropractic bill to attempt to kill the Nebraska Basic Science Law. In this bill the basic science examination for chiropractors was to be placed before the Chiropractic Board. This bill was also indefinitely postponed by the committee, and no attempt was made to raise it.

Garber, of Webster, and Heiliger, of Lancaster, also introduced a bill which would permit osteopaths to make the premarital blood test under the law passed at the previous session. After a hearing, the committee postponed the bill indefinitely. Garber then made an attempt to raise the bill on the floor and was successful by a vote of 23 to 13. Senator Jeffords then offered an amendment to the bill which would confine this privilege to those osteopaths who had passed the Medical Examining Board and had received a license to practice medicine and surgery. This amendment passed the legislature by one vote. After the amendment was attached to the bill, Garber stated that the bill no longer accomplished his purpose and moved that the bill be killed. This was done by a vote of 20-15.

A bill was introduced by Garber, of Webster, and Hubka, of Gage, which would require all chiropractors to attend a post graduate course of not less than three days per year as a prerequisite to licensure. Apparently this bill stirred up some internal strife within the chiropractic group and the bill was withdrawn.

Garber, of Webster, and Hubka, of Gage, introduced a bill which set up certain educational qualifications for chiropractors and chiropractic schools. This bill required a high school education for entrance into the chiropractic schools. A chiropractic school, to be an accepted school, is required to maintain and conduct a clinic for patients in which students are required to regularly participate in the care and adjustment of patients. The school, or schools, must give instruction in anatomy, orthopedics, physiology, embryology, chemistry, pathology, hygiene and sanitation, bacteriology, symptomatology, histology, spinal diagnosis, principle and practice of chiropractic, including palpation, nerve tracing and adjusting. The bill requires actual attendance for four college years totalling not less than 4,000 hours. This bill was not opposed and was passed.

There were two bills introduced pertaining to building and operation of hospitals; one for county hospitals and the other for city hospitals. Brodahl, of Saunders, made an attempt to attach an amendment to each bill making it a requirement that the staffs of such hospitals should be open staffs. These amendments made it mandatory by law to permit any individual licensed to practice any of the healing arts to have access to the hospitals for their patients. No restrictions whatever were made, thus virtually taking the operation of the hospital, so far as administration of medical care was concerned, out of the hands of the staff and hospital management. Both of these amendments were defeated, but by uncomfortably close margins.

Near the end of the session a bill was introduced by the Committee on Public Health and Miscellaneous Subjects to raise the salary of the Director of Health to $5,500.00 per year. This bill passed.

Altogether the session was a very satisfactory one from the standpoint of maintaining high medical standards. There were approximately thirteen members of the legislature who appeared to favor a lowering of medical standards at each and every opportunity, both by their votes and activities in the promotion of such legislation.

It is evident that some tribute of appreciation is due to Senator Jeffords, Mullen; Senator Lester Anderson, Aurora, and Senator Foster, Omaha, for their work and attitude on the Public Health and Miscellaneous Subject committee. Because of their positions on this important committee, their influence was felt and was outstanding. Unfortunately, not as much can be said for the other two members of this committee, Senator Babcock, Sidney, and Senator Thomas Adams, Lincoln, who were consistent and persistent in their attempts to lower medical standards and qualifications.

THE JOURNAL

Your state medical journal has just completed the best year in its history both from the standpoint of income and from the number of pages printed during the year. A number of color advertisements have been added during the past year, adding greatly to the general appearance of the publication. The advertising income has more than doubled in the past four years. In 1942, the income from advertising for the journal was $5,563.64. In 1945 the advertising income was $11,725.27. This increase in advertising income made it possible to increase the number of pages. In 1944 there were 844 printed pages in the journal. This was increased to 1,092 pages during the past year, or an increase of 248 pages. About one-half of these pages are reading matter. This increased size of the journal is due largely to the fine cooperation which has been given by the members in their contacts with detail men and in responding to the ads published in the journal. We hope that this cooperation may be continued during the coming year.

PROCUREMENT AND ASSIGNMENT SERVICE

The work of this committee appears to be about completed. Since the cessation of hostilities the functions have been in reverse, and the time spent in the work has been in an attempt to get men released from active duty and returned to their home towns for private practice. There has also been a great deal of work done in relocating physicians in areas where physicians are badly needed. Records are maintained in the headquarters office of towns where physicians are needed and as the men return and inquire for locations, we help in every way possible to find a satisfactory place for them to enter private practice. Following the death of Dr. A. A. Conrad, Chairman of Procurement and Assignment since its organization, Dr. R. B. Adams was appointed to this position and has been serving in this capacity. The work of this committee should be practically completed by the end of 1946.

STUDENT LOAN FUND

We reported a cash balance in this fund at the close of business December 31, 1944, of $2,656.70, and three outstanding notes. During the past year one of these notes in the amount of $468.17 was paid in full and at the close of business on December 31, 1945, we have a cash balance of $3,124.87 and two notes yet outstanding. The face value of these two notes is $1,005.87, and the amount of interest due is $60.35.

THE ANNUAL ASSEMBLY

It was necessary to cancel the 1945 Annual Assembly, and we could hold only the meeting of the Council and House of Delegates, which was a one-day session. Plans are being made for an outstanding meeting in 1946. As a result of the vote of the House of Delegates, the 1946 meeting will be held in Lincoln and the Cornhusker Hotel has been selected as the headquarters. We are anticipating the largest income from exhibits which the association has ever received for an Annual Assembly. The income for the 1944 meeting which was held in Omaha, was $2,098.50, which sum was an all time high. The floor plan has already been prepared and mailed out for the 1946 meeting with spaces for 34 technical exhibits. These spaces have all been sold with the exception of one space for $55.00. The total sold to date amounts to $2,380.00. We have requests from four additional exhibitors who wish to be included in our show and we are attempting to expand our plan in order that they might be included. The total revenue from technical exhibits will be approximately $2,500.00, and as in times past, it is planned to spend about this amount on the meeting for the benefit of the membership. The Committee on Scientific Assembly has been informed of the probable income and can plan accordingly. They are planning an outstanding meeting.

MEMBERSHIP

We submit herewith the usual membership tables, showing the state of membership of the association:

TABLE NO. 1—1945

Members Deceased	11	
Non Members Deceased:		
8 licensed		
8 not licensed	16	27
Members moved out of state	22	
Non Members moved out of state	10	32
Members in Military Service	232	
Non Members in Military Service	58*	290
Total Loss		349
New Physicians in State		12
Net Loss		337
In Active Practice		1,031
Retired, but eligible		34
Members—December 31, 1944		1,104
Members—December 31, 1945		1,080
Net Loss		24

* This figure includes some interns.

Table No. 2 is a distribution under the various classifications which accounts for registrations listed in the Bureau of Examining Boards. These figures do not include 229 members in military service whose license has been put on the inactive list until their return.

TABLE NO. 2

Registered Nebraska Physicians in 1945

Members—In active practice	787
Residing out of state	14
Honorary	22
(6 retired—not licensed)	
Deceased	8
Military Service, but on active list	3
Non-Members—In active practice	172
Not eligible	44
Residing out of state	290
Residents and Interns	36
Retired (retain active license)	28
Deceased	8
Military Service	58
D. O.	6
Total Registered Physicians	1,476

TABLE NO. 3

1945 Members:	
In Service	232
Honorary	28
Deceased (3 Honorary)	11
Residing out of state	14
Residing out of state—not licensed	2
Retired, but retain membership	6
Practicing	787
Total Membership	1,080

COMPONENT SOCIETY VISITATIONS AND MEETINGS

Due to wartime conditions and a continuation of difficult travel conditions and a lack of county society and district meetings, it has been impossible to attend as many meetings as desired during the past year. We have a recorded attendance of thirty-one different meetings both medical and lay groups. Included in this list is four addresses before lay groups. In addition, your secretary attended a meeting of state presidents in Denver, two American Medical Association meetings in Chicago, and the meeting of the North Central Medical Conference in St. Paul, Minnesota.

CORRESPONDENCE

The correspondence records show that a total of 11,913 pieces of mail have gone through the office during the past year. There were 5,393 pieces of incoming mail and 6,520 pieces of outgoing mail.

COMMITTEE ON PREVENTION AND AMELIORATION OF DEAFNESS

The Committee on Prevention and Amelioration of Deafness has been inactive during the past year.

Yours very truly,
J. J. HOMPES, M.D.,
Chairman.

REPORT OF THE MEDICAL ECONOMICS

The present interest in Medical Economics is at a high pitch. The medical professional is aroused as never before to the knowledge that a revolution is on in the manner of distribution of medical care. Confusion still exists in the minds of many as to the real definition of what constitutes Socialized Medicine or political medicine. The tide of interest has spread to the mass of the people and the politicians are getting ready for an attempt to ride to fame. Never in our time has there been so much said or written about the subject. The American Medical Association has assumed a militant leadership, as it should. Many organizations are stirring the brew. Some of these are not of our choosing. The best of them are backed by the rank and file of the profession.

It is not possible in a brief review to discuss all the problems and each angle, but attention should be drawn to a few essential declarations by which a busy physician may be guided. At the present time there is before Congress pending legislation as presented in President Truman's message of November 19, 1945, a five point program.

1. The American Medical Association has approved the Hill Burton Bill, which increases the funds for hospitals and health centers.

2. Expansion of the Maternal and Child Health service, which is the same as the Pepper Bill, and which is unnecessary if a compulsory sickness insurance bill is passed.

3. Increased funds for medical education and research, especially in the fields of cancer and mental hygiene. These are the same proposals as for the National Science Foundation. It puts the federal government in control of medical education throughout the U.S.A., by the control of funds.

4. A nation wide system of compulsory sickness insurance to cover every man, woman and child in the U. S. and to care for the indigent. We have opposed compulsory sickness insurance consistently for many years. Unfortunately the President reaffirms the peculiar interpretation of the term socialized medicine by claiming, "this is not socialized medicine." But such a method of meeting this objection is so absurd on the face that anyone with a grain of intelligence can only smile with pity of the estimation put on the credulity of the profession or laymen.

5. Compensation of workers for disability due to illness. Our House of Delegates has already approved such proposals in the past.

It is the purpose of your committee to call attention to these steps being taken by our law makers. Hospital Insurance schemes and medical care plans are being furthered by all possible means. Progress is being made in offering voluntary insurance both for hospitalization and medical care.

The Wagner-Murray-Dingell bill, Senate File 1606, was introduced November 19, 1945, by Wagner and Murray. Likewise by Dingell in the House. By concerted action, also, the President timed his message. The arguments given by the President were old and trite and evidently prepared for him. Arthur Sears Henning states "that the compulsory insurance plan is chiefly the brain child of Isidore S. Falk, research director of the Social Security Board, and Michael M. Davis, a member of the C.I.O. Public Action Committee.

Wagner states that the bill is the concerted action of the outstanding medical authority, and of labor, farm, consumer, and health organizations interested in improving the Nation's health. This is manifestly a sweeping catch-all statement. Neither the President, Mr. Wagner nor the Social Security Board made the slghtest attempt to consult any representative of the A.M.A., which now embraces more than 125,000 American physicians. This action is typical of what bureaucrats would force on the American people. It is government by the minority with a vengeance. It is the culmination of years of strategy by the approval of the President of the United States. Since Michael Davis engineered the Committee on Costs of Medical Care, all agencies available have been enlisted and craftily massed behind the movement to revolutionize our system of medical care. Around their banners they have rallied a group of doctors of philosophy in the fields of sociology and economics which they call the 'Boas Physicians Forum.' In reality it is the socialistic element in the American Public Health Association.

The people of our country should know that the movement for placing American Medicine under the control of the federal government through a system of federal compulsory sickness insurance is the first step toward the regimentation of utilities, of industry, of finance, and eventually of labor itself.

The Wagner-Murray-Dingell bill is socialized medicine with a vengeance. The medical profession and the sick will be under political control. The great system of private and community hospitals built up in this country will depend for their support on funds paid by a federal government agency. By this measure the philanthropic efforts for the care of the sick, which have been the pride of our nation, will be forever deterred. Competent young men seeking to enter the medical profession will be forced to seek the other fields of action which may still exist in our democracy, where they exercise individual initiative and freedom of thought and action. Doctors will become clock punchers and belong to a system. To me these are signs of a decadent nation, or the striving of an element in our population to solve the social problems just as the bankrupt nations of Europe have tried and miserably failed.

In answer to the proposals of the Wagner-Murray-Dingell bill, one should offer the platform of the American Medical Association which has been at mast for a long time. It is a declaration by the medical profession of the highest concept of duty to the American people and their plans for continuation of a service which has been furnished unfalteringly throughout the years.

As a further constructive program for medical care, the platform adopted by the Council on Medical Care and Public Relations and the Board of Trustees of the A.M.A. should also be offered and widely publicized.

PREAMBLE

"The physicians of the United States are interested in extending to all people in all communities the best possible medical care. The Constitution of the United States, the Bill of Rights and the 'American Way of Life' are diametrically opposed to regimentation or any form of totalitarianism. According to available evidence in surveys, most of the American people are not interested in testing in the United States experiments in medical care which have already failed in regimented countries.

"The physicians of the United States, through the American Medical Association, have stressed repeatedly the necessity for extending to all corners of this great country the availability of aids for diagnosis and treatment, so that dependency will be minimized and independence will be stimulated. American private enterprise has won and is winning the greatest war in the world's history. Private enterprise and initiative manifested through research may conquer cancer, arthritis, and other as yet unconquerable scourges of humankind. Science, as history well demonstrates, prospers best when free and unshackled.

PROGRAM

"The physicians represented by the American Medical Association propose the following constructive program for the extension of improved health and medical care to all the people:

1. Sustained production leading to better living conditions with improved housing, nutrition and sanitation which are fundamental to good health; we support progressive action toward achieving these objectives.

2. An extended program of disease prevention with the development or extension of organizations for public health service so that every part of our country will have such service, as rapidly as adequate personnel can be trained.

3. Increased hospitalization insurance on a voluntary basis.

4. The development in or extension to all localities of voluntary sickness insurance plans and provision for the extension of these plans to the needy under the principles already established by the American Medical Association.

5. The provision of hospitalization and medical care to the indigent by local authorities under voluntary hospital and sickness insurance plans.

6. A survey of each state by qualified individuals and agencies to establish the need for additional medical care.

7. Federal aid to states where definite need is demonstrated, to be administered by the proper local agencies of the states involved with the help and advice of the medical profession.

8. Extension of information on these plans to all the people with recognition that such voluntary programs need not involve increased taxation.

9. A continuous survey of all voluntary plans for hospitalization and illness to determine their adequacy in meeting needs and maintaining continuous improvement in quality of medical service.

10. Discharge of physicians from the armed services as rapidly as is consistent with the war effort in order to facilitate redistribution and relocation of physicians in areas needing physicians.

11. Increased availability of medical education to young men and women to provide a greater number of physicians for rural areas.

12. Postponement of consideration of revolutionary changes while 60,000 medical men are in the service voluntarily and while 12,000,000 men and women are in uniform to preserve the American democratic system of government.

13. Adoption of federal legislation to provide for adjustments in draft regulation which will permit students to prepare for and continue the study of medicine.

14. Study of postwar medical personnel requirements with special reference to the needs of the veterans' hospitals, the regular army, navy and United States Public Health Service."

In closing, your committee urges every member of the Nebraska State Medical Association to read faithfully his own journal; to find time to follow week by week the Journal of the A.M.A., which records fully the parade of events in the National Capitol. Be skeptical of bulletins mailed under the caption of strange societies. In these ways it is possible for all to have knowledge of what is taking place in our economic and social trends.

E. W. ROWE, M.D., Chairman,
Economics Committee,
Nebr. State Medical Association.

ADVISORY COMMITTEE TO THE WOMAN'S AUXILIARY

As Chairman of the Advisory Committee to the Woman's Auxiliary may I report that I have written to Mrs. Brown, the State President. The Medical Association appreciates their interest and cooperation in furthering its aims.

At this time there is no special project being undertaken by the Auxiliary.

Yours truly,

W. W. CARVETH, M.D.

REPORT OF THE HEALTH PLANNING COMMITTEE

Several years ago there came together a group of people interested in better medical care for the people of Nebraska. Widely different organizations were represented in the health problems of the State. The Extension Department of the College of Agriculture of the University of Nebraska assumed the leadership on unanimous agreement of the fifty or more organizations assembled. This leadership has been continued and it has proven eminently satisfactory.

Nebraska is mainly an agricultural state, farms, hamlets, towns and county seats making up the larger part of a homogeneous population. The College of Agriculture through many years of industry has built up a well organized leadership and carries the gospel of higher standards of living and health into every county and home.

Meetings have been held monthly or oftener. The groups represented have varied from the farm organizations to labor, from the visiting home demonstrators to the Department of Education and the Nebraska State Health Department. The agenda of the programs has been the reports of special committees, medicine's part in the effort to obtain better medical care, review of types of literature to be sent out by the College to rural leaders, etc.

The experiment in the Sand Hills of Cooperative Medicine, came to a standstill when the director left. But something has been accomplished. Some lessons have been learned which should serve as a guide when another physician is available. The people of that area are not indigent and do not desire free medicine. They are widely scattered but they are independent and well able to support a cooperative plan of medical care. Of course, the counties have some poor people who receive State Assistance and also county relief; that situation is no worse than in other parts of the state. Of course, also they are entitled to public health benefits, as are all other sections. This cooperative body of loyal citizens can and will pool their efforts to maintain a medical center, equipment, and nurses. They will underwrite the salary of a competent doctor of medicine and they will continue if the people wish to promote a voluntary system of medical care and also hospitalization.

It has been the pleasure of your committee to sit in at all the meetings of the Nebraska State Health Planning Committee. It has been called upon for guidance and advice. Sometimes specialists in various fields have given their views on different phases of medical economics. At times the views of radicals, or those we speak of as left hand leaders, have been heard. But in the main, liberal conservatism has prevailed. The leadership has earnestly tried to avoid the mistake of extreme radicalism. It has stated that the rural people want to choose their physicians and they want none of State Medicine.

Dr. R. S. Wycoff, of Lexington, has driven a long distance to be present at the meetings. Mr. M. C. Smith's counsel has been much sought. He has been granted the opportunity to fully explain the part of organized medicine in the planning of better medical care, and the unwisdom of a revolution in overthrowing the accomplishments of the past years of progress.

The State Health Planning Committee requests larger representation of the medical profession in their councils. By formal action they invited the appointment as members of the president, president-elect, and the recent past president. It is our recommendation that a suitable representative of the Nebraska State Medical Association be appointed to continue the consultation with this worthy body of citizens so vitally and effectively interested in the health of the people.

EDWARD W. ROWE, M.D.,
Chm., Health Planning Committee,
Nebr. State Medical Association.

COMMITTEE ON VASCULAR AND CARDIAC DISEASES

The reason that I have made no report on my committee up to date is because I haven't one to make, or if I have, it is a very poor one.

I started out last October to gather up enough heart papers by men outside of Lincoln and Omaha to give us a good edition of the Journal which we intended to put out in April. Everybody seemed to have so much to do that they could not get it written. I continued my efforts up until the 15th of January when I called up Herman Jahr and asked him if he could help me out and he simply made the statement that the same difficulty seemed to be present with all of them. The only thing I can report is that the Cardiovascular Committee will not be able to put out their copy dealing with vascular conditions this year.

LUCIEN STARK, M.D.,
Chairman.

COMMITTEE ON ALLIED PROFESSIONS

There was no business that came up for the Committee on Allied Professions during this past year. Therefore, no meetings were held.

Respectfully submitted,

HERBERT H. DAVIS, M.D.,
Chairman.

CONVALESCENT SERUM COMMITTEE FINANCIAL STATEMENT

January 1, 1945 to January 1, 1946

Revenues:		
SERUM SALES		$ 722.50
Measles	$ 48.00	
Mumps	74.00	
Pertussis	486.00	
Polio	87.50	
Scarlet Fever	27.00	

STATE APPROPRIATION (½ year)		375.00	
TOTAL REVENUES			$1,097.50
Expenditures:			
Indigent Account		115.00	
Postage and Express		32.38	
Refrigeration		13.32	
Salary secretary		270.00	
Telephone and Telegraph		34.80	
Cost of serum sold		744.10	
Measles	40.00		
Mumps	78.00		
Pertussis	445.50		
Polio	157.50		
Scarlet Fever	23.10		
TOTAL EXPENSES			$1,209.60
Loss for year 1945			$ 112.10
Assets, January, 1945:			
Accounts receivable		138.00	
Bank balance		471.49	
Serum stock on hand		187.50	
TOTAL ASSETS ON HAND, January 1, 1946			$ 796.99

Respectfully submitted,

FLOYD S. CLARKE, M.D., Chairman.

CANCER COMMITTEE

At the beginning of the year, there was some apprehension concerning the aims of the national Cancer Society. Their literature seemed inclined strongly toward the dictatorial side. It was only after some negotiations throughout the first three months of the year that we were able to come to a satisfactory understanding.

Mr. William Jeffers, President of the Union Pacific Railroad, sponsored the drive in our state and delegated the immediate leadership to Mr. Ed Schmitz, his executive secretary, who in turn authorized Mr. R. A. Kirkpatrick, of the public relations department of the Union Pacific, to spend the major portion of his time holding meetings to promote lay interest in the cancer problem and aid in the collection of funds for the use of the American Cancer Society, Inc. This activity was the major source of the $27,464.27 collected during this year's campaign, and according to agreement entered into during the discussion early in the year, sixty per cent of these funds were left in this state to be used for this work.

Letters of appreciation have been mailed to the members of the Union Pacific staff who were so kind in aiding in this drive.

In the annual report submitted last year, the chairman of the Cancer Committee requested permission from the House of Delegates and the officers to organize a Cancer Research and Educational Society within the Nebraska State Medical Association from members who were interested in the cancer problem. This request was granted, and the preliminary organization meeting was held in Omaha, on September 20, in the Medical Arts auditorium. At this meeting, it was decided to hold the organization meeting on October 26, at Hotel Paxton, in Omaha, immediately following the last session of the Omaha Mid-West Clinical Society.

At this meeting, on October 26, the Constitution and By-Laws were adopted, and the following officers were elected—president, Dr. Edward W. Rowe; president-elect, Dr. H. E. Eggers; secretary, Dr. Frank H. Tanner; treasurer, Dr. Lucien Stark, and advisers, Dr. Earle G. Johnson, Dr. Thomas D. Boler, and Dr. Earl A. Connolly.

According to the Constitution and By-Laws, the standing committees—Program, Membership, Public Relations, and Nominating—are to be named by the president. Special committees may be appointed by the president as he deems fit.

Since that time, Dr. Rowe and his fellow officers made considerable progress in the final organization work. Committee members have been named, and their next meeting will be during the February 1946 meeting of the Councilors in Lincoln.

With the organization of the Cancer Research and Educational Society which will supervise both lay and professional education on the cancer problem in this state, we have the following groups working on this problem—The American Cancer Society, Inc., of New York City, which functions through its Nebraska organization, the chairman and director of which is Dr. Palmer Findley of Omaha. The executive secretary is Mrs. Thomas L. Houlton, of Omaha. Dr. Howard B. Hunt is secretary. They are assisted by a Board of Directors, consisting of Dr. James F. Kelly, chairman of the state Cancer Committee, and Dr. Charles McMartin, President of the Nebraska State Medical Association, who are members of this board by virtue of the positions they hold in the state medical association. Other Executive Board Members are Dr. David Findley and Dr. F. Lowell Dunn. Dr. W. S. Petty, Director of the State Department of Health, is also a member of this board by virtue of his position in the state health department.

The Constitution and By-Laws of the Nebraska division of the American Cancer Society, Inc., was drawn up during the year, and provisions were made to include on the Board of Directors the president and chairman of the Cancer Committee of the State Medical Association and director of the State Department of Health so that they would be in close touch with the activities of the cancer society.

The Constitution and By-Laws have not as yet been approved and returned to the state society from the New York office. It is understood that they will adopt a rather uniform Constitution and By-Laws for all the states.

The campaign receipts this year netted the American Cancer Society $9,564.59. The remainder was left in Nebraska, and the cash on hand on December 31, 1945, was $15,656.52.

It was the intention of the state representatives of the national organization to transfer to the state Cancer Research and Educational Society sufficient money to purchase adequate equipment to hold meetings in various parts of the state without moving such equipment from place to place. However, equipment has not been available, and Dr. Hunt who drew up the budget for the Nebraska division of the American Cancer Society is holding the program in abeyance.

After President Rowe decides on the pressing needs of the State Cancer Research and Educational Society, some alterations in the original plans may take place. The most important item in the budget of the national cancer group is cash to pay for public addresses on cancer before various groups. The details of this program have not been finally settled, but it is a very important matter as upon the arrangement made will depend much of the annual lay education program.

There was a luncheon held in Lincoln on January 16, when Mrs. Bogart, the regional representative of the American Cancer Society, addressed several members of the State Medical Association. She was particularly anxious to discuss her problems before as large a group as possible in order to avoid any misunderstandings such as occurred last year.

Dr. W. S. Petty of the State Department of Health was present and pledged a continuance of the cooperation formerly afforded by his department on this problem. Mr. Wayne Reed, of the Department of Education, was not present, but as he has cooperated in the past, it is quite certain that this cooperation will be continued this year.

Mrs. Thomas L. Houlton of Omaha, the state director of the national cancer society, accompanied Mrs. Bogart, and reported that she had not been able to get all of the Councilors in the various districts to name women workers. She requested that as many women workers as possible be secured and stated that probably one woman heading up the drive in each county would be a fine arrangement.

It is obvious that we are much better organized this year than last year, and we sincerely hope that we will have more cooperation than during the last campaign. The Cancer Committee is indebted to all the officers of the Nebraska State Medical Association; to the editor of the Journal, Dr. Herman Jahr; and to the executive secretary, Mr. Merrill Smith, for their fine cooperation during the past year.

Respectfully submitted,
JAMES M. WILLIS, M.D.,
NELS H. RASMUSSEN, M.D.,
JAMES F. KELLY, M.D.,
Chairman, Cancer Committee.

REPORT OF COMMITTEE ON TUBERCULOSIS

Your committee has held but one meeting at which only two members were present, because one committee member, Dr. Albertson, has been in the Navy since last summer.

With reference to the present over all situation in Nebraska, your committee desires to comment as follows:

1. We do not believe that at this time any particular analytical comment is indicated or advisable concerning the change in personnel and policy which occurred at the state hospital last spring. The history of most institutions for the tuberculous, maintained by states or counties, especially where there is divided authority as between the medical director and business management, shows cycles of disturbance similar to what has happened in Nebraska. It is our opinion and recommendation at this time, that the present policy, program and organization, should have the interest, support and cooperation of the medical profession of the state. While the total number of patients at this time is approximately the same as of a year ago, it should be understood that thirty to forty patients have been moved from the Douglas County Hospital, Omaha, to the state hospital.

2. Douglas County has adopted a policy of not hospitalizing cases of tuberculosis in the Douglas County Hospital. Cases discovered in Omaha and Douglas County, are required to make application and accept hospitalization at Kearney, except in an extreme emergency. This policy was determined and is controlled by the director of the Douglas County Assistance Bureau. By the removal of cases from the Douglas County Hospital, to the state hospital, during the past few months, the number of patients in the Douglas County Hospital has been reduced from about sixty to less than twenty. Whether such a policy is advisable from the standpoint of public health is questionable.

This policy has also definitely reduced the available cases for clinical teaching in connection with our medical schools, far below the standard advised by the College of Chest Physicians, and the American Trudeau Society.

3. The program and activities of the State Department of Health for the past year and apparently as planned for the present year, have been similar and consistent with a general program throughout the country carried on under the general direction of the United States Public Health Service. At the present time the mobile unit of the State Health Department is being employed by the tuberculosis division in surveying the institutions for the insane. In these institutions there is high incidence of "open disease." So far as we are aware, no plans have been evolved concerning the care or isolation of such cases after they are discovered.

Your committee suggests the advisability of a conference of representatives from the State Department of Health, the State Hospital for Tuberculous, State Board of Control, the State Assistance Bureau, and the Nebraska Tuberculosis Association, with the view or objective of developing a correlated and cooperative combined program in the matter of the control of tuberculosis in this state.

JOHN F. ALLEN, M.D.,
Chairman.
TORRENCE C. MOYER, M.D.

M.C.H. COMMITTEE REPORT

Your committee on Maternal and Child Health has had no occasion to function in its orginal concept during the past year. The division of Maternal and Child Health of the State Department of Health has, by reason of the War emergency, devoted most of its time to the carrying out of the provisions of the E.M.I.C. program.

The committee received a communication from Dr. F. S. Dewey of the Five County Society in December, containing a resolution from that Society urging the cessation of E.M.I.C. activities.

At the request of President McMartin, the committee conferred with Mr. Neil Vandemoor of the State Department of Assistance and Child Welfare to the setting up of a new medical program for the aid to dependent children. Increased monies were made available to the Assistance Division by the last legislature through which the medical care program for Dependent Children be expanded. The methods of payment for this care were explored and it was the unanimous decision of the Committee that the best interests of the physician and patient would be preserved by the maintenance of the patient and doctor relationship and without the intervention of a third party or agency. It was, therefore, recommended that the agency pay the patient for medical services and the patient pay the doctor. The agency now is in the position of paying for medical care in this group of people on the basis of the accepted medical fee prevalent in the Community and will do so.

Your committee feels that this is, indeed, a step forward and away from Socialized Medicine. It is hoped that the physicians of the state will cooperate fully with the letter and intent of this program.

More detailed information concerning the Aid for Dependent Children's program will be available at the time of the Council meeting if such information is desired.

Respectfully submitted,
HAROLD S. MORGAN, M.D.,
Chairman.

REPORT OF F.S.A. COMMITTEE

There are at present only two associations still functioning in the State of Nebraska. These are in Pawnee and Johnson Counties.

The total number of families in the two associations was forty-five (twenty-one and twenty-four respectively). The cost per family as per the records is $33.00 annually.

The F.S.A. Committee has had no meetings during the past year.

Respectfully submitted,
E. S. WEGNER, M.D.,
Chairman.

Due to lack of function, we have received no reports from the following committees:

- Insurance
- Public Health
- Venereal Diseases
- Conservation of Vision
- Pneumonia
- Hospitals and Medical Standards
- Study of Arthritis

PROCEEDINGS OF THE NORTH CENTRAL MEDICAL CONFERENCE

J. D. McCarthy, M.D., Delegate

The annual meeting of the North Central Medical Conference was held in St. Paul, Minnesota, November 11, 1945. States represented were Iowa, Nebraska, North and South Dakota, Minnesota and Wisconsin. Delegates present from Iowa, 7, Nebraska, 3; North Dakota, 3; South Dakota, 4; Minnesota, 27; Wisconsin, 9; Guest Speakers, 8.

R. D. Bernard, M.D., of Clarion, Iowa, President of the Conference, presided. Dr. Bernard addressed the Conference, emphasizing and dilating on the following points:

1. The part that American Medicine will play in the vast postwar program will be determined largely by the policy adopted at the December meeting of the House of Delegates of the American Medical Association.

2. The North Central Medical Conference is particularly interested in the report of the Council on Medical Service and Public Relations of the American Medical Association, in that it offers an opportunity for direct expression of "grass roots" opinion to the House of Delegates of the American Medical Association. Dr. Bernard was of the opinion that the Council had accomplished much in a short period of time and commended the council for the opening of a liaison office in Washington with Dr. Joe Lawrence as representative of the Council.

3. An overall national plan for prepaid voluntary medical care, free of government control and federal aid, must be evolved.

4. A national public relations director for American Medicine should be appointed to the end that the cooperation and sympathy of labor, industry and farm groups would be obtained. He also stressed the need for cooperation with the rapidly increasing public health service.

5. The public in general should be appraised as to what adequate medical care through the private practice of medicine could accomplish, which project should be definitely under the direction of the American Medical Association operating through state and county units.

The President then appointed the following committees:

Resolutions Committee: R. G. Arveson, Wisconsin, Chairman; J. D. McCarthy, Nebraska; N. J. Nessa, South Dakota.

Nominating Committee: W. L. Burnap, Minnesota, Chairman; J. F. Hanna, North Dakota; S. E. Gavin, Wisconsin.

Auditing Committee: Mr. C. Crownhart, Wisconsin, Chairman; Mr. M. C. Smith, Nebraska; Miss Mary L. McCord, Iowa.

The next speaker on the program was Dr. Victor Johnson, Secretary of the Council on Medical Education and Hospitals of the American Medical Association. Dr. Johnson reviewed the work done by the Council in attempting to solve the problems of returning medical officers seeking further educational opportunities. Dr. Johnson pointed out that many of these men are requesting residencies, internships and short courses of one kind or another.

He stated that 60,000 questionnaires had been sent to medical officers in the various services. 21,000 replies had been received. Of this number twenty per cent, or 4,000 physicians, stated that they did not plan to take any training after release from service. This group was made up of the older men. 5,000 stated that they desired short review courses. 12,000 desired hospital training for six months or more, the great majority of which sought residencies in surgery, with obstetrics and gynecology, dermatology, internal medicine and other fields mentioned. 45,000 men desired short courses of training of less than six months. 2,000 were interested in courses of three months' duration. 13,000 indicated that they wanted specialty certification.

Dr. Johnson stated that new residencies have been initiated, especially in the larger teaching hospitals associated with medical schools. He also stated that the Council was attempting to streamline the method for approval of residencies in order that they might keep abreast with the rapid pace with which hospitals were completing plans. Dr. Johnson noted that men in the Army and Navy Specialist Corps are now allowed twelve months' internship before being called into active duty instead of nine months which had been in vogue. Dr. Johnson also pointed out that the Council had been working with the Veterans Administration on the problem of having hospitals classified as educational institutions eligible to participate in the educational benefits offered under the G. I. Bill of Rights.

Dr. J. C. Parsons of Iowa, speaking to Dr. Johnson's paper, spoke of the importance of cooperating with the returning medical officers in their attempt to reestablish themselves in civilian practice. He gave a summary of the work that the Iowa State Medical Association was doing regarding this matter. The delegates entered into a generalized discussion of Dr. Johnson's paper. This discussion had to do particularly with the question of residencies to be established, especially as it related to minimum requirements necessary for the establishment of residencies and whether or not 13,000 men would seek specialty board certification.

Mr. J. S. Jones, Executive Secretary of the Minnesota Farm Bureau Association, was the next speaker. Mr. Jones was one of the speakers on the panel discussion of rural health, choosing as his title "Adequate Medical Service." Dr. L. W. Larson of Bismarck, North Dakota spoke on "The Physician's Role in Rural Health" and Dr. W. A. O'Brien of St. Paul, Minnesota, Director of Postgraduate Medical Education, University of Minnesota, discussed "An Adequate Hospitalization Plan for People in Rural Communities." This symposium proved to be one of the highlights of the day. Mr. Jones has had much experience over a period of years with people living in rural communities, and one of his main projects has been the provision of better medical care to these people.

He outlined seven points drafted by the Farm Group Committee at a special meeting which were later unanimously approved. These points were as follows:

1. That the American Medical Association endeavor to have state medical associations cultivate better working relationships with the state farm bureaus.

2. That all committees, national, state or community, selected or appointed concerning state health activities, have qualified farmer representatives included.

3. That the Farm Group Committee work with the medical profession in combating socialized medicine by promoting an aggressive, constructive program.

4. That the need for hospital and medical services, with particular reference to rural areas, be determined on a factual basis, after thorough consideration and research.

5. That the American Farm Bureau Federation and the state federations be leaders in working out plans for wise and effective use of public funds for improvement of public health, with emphasis on local participation and local control.

6. That a plan be worked out for providing scholarships or loan funds for worthy rural youth to make it possible for them to study medicine, with or without agreement to return to the country for practice, and that there be interstate collaboration in medical education of students from states in which there is no medical school.

7. That prepaid medical and hospital care be developed on a sound actuarial basis without subsidy, as one of the problems in medical care for rural people is payment for medical service, especially as it relates to the payment for services due to catastrophic illness.

Mr. Jones stressed the fact that farm groups stand ready to cooperate with the medical profession in working out a plan for people in rural communities, and that they are opposed to government medicine such as that contemplated in the Wagner-Murray-Dingell and Pepper Bills.

Dr. Larson oulined reasons why physicians migrated from strictly rural areas to larger urban centers, the most important of which are inadequate remuneration, long distances to be traveled to reach patients, lack of hospital and adequate diagnostic facilities, absence of consultation service ,long hours of work, inadequate facilities for education of physicians' families, and the difficulties experienced in trying to arrange for vacations or postgraduate study.

Dr. Larson pointed out that a great wave of enthusiasm is spreading into rural sections for the construction of small rural hospitals. He was of the opinion that it would be difficult to bring this about because of initial cost of construction and equipment, cost of maintenance, difficulty in maintaining adequate medical and nursing personnel and the tendency of rural people to by-pass the local physician and small hospital and consult a physician and possibly enter a hospital in larger centers regardless of distance. Dr. Larson entered into considerable discussion as to the experience of North Dakota in trying to maintain small hospitals in county seats which were built through grants from the United States Government. He maintained that such hospitals to be successful must be subsidized and have complete laboratory and x-ray facilities. He was of the opinion that an attempt should be made to encourage the development of small community health and diagnostic centers which would be strategically located in the small towns. Dr. Larson also pointed out that the cost of medical care in rural communities is a problem of great concern to the people, according to their spokesman. Dr. Larson felt that the only solution of the problem was to raise the level of the farmer's income or reduce the cost of the physician's service or spread the cost of medical care through a prepayment medical insurance plan. Dr. Larson offered the following four point program as a solution of the rural medical and health problem:

1. The number one objective in the constructive fourteen point program of the American Medical Association for the extension of improved health and medical care to all people is as follows: "Sustained production leading to better living conditions, with improved housing, nutrition and sanitation, which are fundamental to good health."

2. The development of prepaid medical insurance plans which will succeed in the rural areas.

3. Expansion of public health facilities. Commented Dr. Larson: "I believe that we, as a profession, should support a program in which a well organized public health unit will be developed in every rural community which has a population large enough to support it. Preventive medicine is extrtmely important, and has not been given its proper emphasis in rural areas."

4. Continued study of the problem of rural medical care. Each state medical society should have a committee to study the problem. We must not only support, but also provide the leadership in the state health planning committees, whose membership should represent all organizations and interests in the state. Laymen may not understand all phases of the problem, but experience shows that through conference around the table, a common viewpoint can usually be reached.

Dr. W. A. O'Brien of St. Paul followed Dr. Larson and discussed the postgraduate medical education program at the Center for Continuation Study, University of Minnesota. He stated that this program had been highly successful, basing his opinion on the great number of physicians returning to the university each year for postgraduate work. Dr. O'Brien felt that Dr. Larson's plan should be given consideration by those interested in bringing hospitals to rural communities. He was fearful that some of those interested in this plan had grandiose ideas and that efficiently conducted surveys should be made before hospitals were built in any community. He stated that to build a hospital was easy, but the tragedy had to do with maintaining these hospitals. Dr. O'Brien discussed architecture, administration and the staffing of small rural hospitals. Concluding his remarks he stated that physicians returning from military service are being advised to enter practice with civilian physicians for a while. If they desire to take advantage of the educational provisions of the G. I. Bill, they are being urged to seek residencies, assistantships, fellowships or take general review courses in medicine, surgery or the basic sciences.

At this point the meeting was adjourned for lunch.

Upon reconvening, Dr. Bernard presented Dr. Joseph S. Lawrence of Washington, D. C., Director of the Washington office of the Council on Medical Service and Public Relations. Dr. Lawrence gave a very interesting resume as to the functions of his office and mentioned specific problems, such as the EMIC program. Dr. Lawrence was of the opinion that the CIO and AFL were the most active lobby groups in Washington favoring some kind of national health insurance program. In fairness to the unions, he stated that they are sincere in their belief that medical care should be guaranteed the same as unemployment insurance.

Mr. Jay C. Ketchum, Executive Vice President of Michigan Medical Service, then addressed the Conference. Mr. Ketchum gave an excellent resume of what Michigan had done in furthering their medical service plans. He was of the opinion that prepaid medical service is no longer a debatable experiment but an accomplished fact. He stressed the belief that any such plan could not be successful without active professional participation and support. Mr. Ketchum stated that one of every six persons in the State of Michigan had been enrolled in the Michigan Plan during the past five years and he was of the opinion that it would not be long before the great majority of the residents of the state would be enrolled. In a survey conducted by the Michigan State Medical Association it was disclosed that more than ninety per cent of the people were of the opinion that the physicians were doing a good job. However, the people in exhibiting this favor were thinking of doctors in terms of medical scientists rather than individuals particularly interested in medical economics. Mr. Ketchum stated, "Automatically they look to Washington rather than to the doctor for balm for their economic woes. However, people react with pleased surprise, almost with astonishment, when they discover that doctors are interested in medical economics and are doing something about it."

Mr. Ketchum stressed the point that politicians have carefully avoided mentioning the fact that the majority of the people do not know that it is possible to provide a health care program other than through government auspices. He felt that it was very important that laymen be advised of their opportunities in acquiring medical service plans directed and maintained by the medical profession.

Dr. A. W. Adson of Rochester, Minnesota, outlined the program made by the Council on Medical Service and Public Relations in the two and a half years it had been in existence. He stated that Mr. Thomas A. Hendricks, Executive Secretary of the Indiana State Medical Association, had been appointed as full-time secretary for the Council. The services of Mr. G. W. Cooley, Executive Secretary of the Toledo Academy of Medicine, were obtained to direct the gathering of data on prepaid medical care plans now in operation throughout the country and setting up of a program for disseminating information about these plans to state and local medical societies interested in starting plans of their own. Dr. Adson lauded the work of Dr. Lawrence, Director of the Washington office. He also stated that there seemed to be considerable interest in a national prepaid insurance plan into which the twenty or more state plans in operation could be integrated. He pointed out that a meeting would be held in Chicago, November 30th and December 1st, for the purpose of drawing up plans for national prepaid insurance. Into this would be integrated the hospital plans so that medical care could be provided by the doctors, the hospitals and hospital administrators. Dr. Adson was of the opinion that much would be accomplished during the sessions to be held in December by the House of Delegates of the American Medical Association.

A short business meeting was held, the Chairman calling for a report from the Chairman of the Nominating Committee. The following officers were unanimously elected:

President—J. D. CcCarthy, Omaha, Nebraska.

President-Elect—William Duncan, Webster, South Dakota.

Secretary-Treasurer—Mr. R. R. Rosell, Minneapolis (re-elected).

Mr. Crownhart, Chairman of the Auditing Committee, reported that the accounts of the Conference were in order.

Dr. Arveson, Chairman of the Resolutions Committee, proposed a resolution commending the work of Dr. A. W. Adson as a member of the Council on Medical Service and Public Relations of the American Medical Association and urged his reappointment to the Council. The resolution was adopted and a copy forwarded to the Board of Trustees of the American Medical Association.

Meeting adjourned at 4:15 p.m.

COMMENT

In my opinion more members of the Nebraska State Medical Association should interest themselves in the North Central Medical Conference, for during the one day session problems and issues are discussed which directly affect the practicing physician in the north central states. Any member desiring to attend these meetings, which are held in St. Paul annually, will be welcomed. There is no registration fee.

The symposium on the problems of rural health was in my opinion the outstanding feature of the program. There was little doubt in the minds of all present that a plan having to do with adequate medical care for people in rural communities is a "must" if the medical profession is to maintain its standing with these people. One of the greatest barriers to socialized medicine as contemplated by bills in the United States Congress is the attitude of the people in farming communities. They are against any such plan, and, as Mr. Jones stated, will fight to prevent the adoption of such a plan. Certainly the American Farm Bureau Federation and the affiliated farming organizations will buffer all attempts of organized labor to foster socialized medicine on the medical profession and the people of the United States.

I would urge that a considerable part of our program now in the planning for the coming meeting of the Nebraska State Medical Association be set aside for the discussion of this matter and that Mr. J. S. Jones of St. Paul, Dr. L. W. Larson of Bismarck, North Dakota, who is a member of the Committee on Rural Service of the American Medical Association, and Dr. W. A. O'Brien of St. Paul, Minnesota, Director of Postgraduate Medical Education, University of Minnesota, be invited to participate in the discussion.

Dr. Roy W. Fouts of Omaha and Mr. M. C. Smith, Executive Secretary of the Nebraska State Medical Association, attended the meeting.

Respectfully submitted,

J. D. McCARTHY, M.D.,
Delegate.

COUNCIL ON MEDICAL SERVICE AND PUBLIC RELATIONS, A.M.A.

Work has begun already by the Council on Medical Service and Public Relations to put into effect the nationwide prepayment program for medical care of the American people. This program was presented February 17 to the American public through the press and over the radio by the Board of Trustees following joint action by the Council on Medical Service and Public Relations and the Board of Trustees in accord with the resolution passed by the House of Delegates last December. Work on this program is to be coordinated closely with the activities of the Associated Medical Care Plans, Inc., an organization of prepayment plans, just established.

In order that every physician may familiarize himself with the program and be ready to participate, here are some suggestions:

1. See press release that appeared February 17 in the newspapers.

2. See editorial in American Medical Association Journal for Saturday, February 23.

3. Read the enclosed statement of recommendations of the Council as approved by the Board of Trustees which is enclosed and which will be published soon in The Journal of the American Medical Association.

4. Read the standards of acceptance for medical care plans.

The Board of Trustees has established under the Council on Medical Service and Public Relations a Division of Prepayment Medical Care Plans with a director and a staff who will administer the activities of the Council on Medical Service and Public Relations related to the promotion and development of medical care plans in all the states.

Start work immediately on the formation of a plan for your state or local community if such does not now exist. Help and assistance may be obtained from the Council office.

SUGGESTED STANDARDS OF ACCEPTANCE FOR MEDICAL CARE PLANS

(Approved by the Council on Medical Service of the A.M.A.)

Development of plans affecting the distribution of medical care, in accordance with the principles adopted by the House of Delegates, is one of the principal functions of the Council on Medical Service and Public Relations. First in importance in the development of plans affecting the provision of medical care is the utilization of the prepayment method to help spread medical and surgical costs.

The Council on Medical Service and Public Relations suggests that special recognition be granted to plans organized and operated in accordance with standards which adequately protect the interest of the public and the medical profession.

In granting this recognition the Council will consider each prepayment medical care plan in the light of established knowledge, authoritative opinion, and according to standards adopted from time to time by the Council in the interest of the public. Plans that conform with the requirements thus formulated will be accepted by the Council.

Under the conditions defined in the following paragraphs, the Council grants the right to print its seal on all official papers of accepted plans and in any promotional literature or display material used by these plans.

This official seal should appear without comment on its significance unless such comment has been previously approved by the Council. A statement proposed for such use follows: "the seal of acceptance denotes that (name of plan) has been accepted within the standards set forth by the Council on Medical Service of the American Medical Association.

The acceptance of a plan and the seal of the Council are intended to signify that the plan conforms with or meets the following standards or requirements:

1. Local Approval. The prepayment plan must have the approval of the state medical association—or if local, of the county medical society in whose area it operates.

2. Professional Control. The medical profession should assume responsibility for the medical services included in the benefits; the medical profession is qualified legally and by education to accept responsibility for the character of the medical services rendered.

3. Arbitration. Provision should be made for a medical director acceptable to the county or state medical society, or a committee appointed by either of these groups to adjust difficulties and complaints. The medical director or committee members may be paid on a per diem basis for the time involved in handling such matters.

4. Free Choice of Physician. There should be no regulation which restricts free choice of a qualified doctor of medicine in the locality covered by the plan who is willing to give service under the conditions established.

5. Patient Physician Relationship. The method of giving the service must retain the personal, confidential relationship between the patient and the physician.

6. The plan should be organized and operated to provide the greatest possible benefits in medical care to the subscriber. Honesty of purpose and sincere consideration of mutual interests on the part of the subscribers, the physicians and the plans are presupposed as necessary considerations for successful operation.

7. The dues from subscribers through premium rates should be adequate to provide for the benefits offered and the risks involved.

In determining such factors the Council will utilize the experience of those plans that are and have been operating successfully, but will not discourage experiments in other types of coverage provided such experiments are limited in scope and capable of scientific evaluations.

8. Statement of Benefits. These benefits may be in terms of cash indemnity or service units. Where benefits are paid in cash to the subscriber it must be clearly stated that these benefits are for the purpose of assisting in paying the charges incurred for medical service and do not necessarily cover the entire cost of medical service, except under specified conditions.

9. Subscribers' contracts must state clearly the benefits and conditions under which medical services will be provided or cash indemnities paid. All exclusions, waiting periods, and deductible provisions must be clearly indicated in the promotional literature and in the contracts.

10. Promotion. Promotional activities must be reasonable without extravagant or misleading statements concerning the benefits to the subscribers. In approving promotional material the Council will endeavor to indicate the type of statements which are acceptable and the nature of those considered objectionable. It is not the function of the Council to edit all copy word for word and sentence for sentence, but rather to indicate the general type of revision required in any given piece of literature. It expects the spirit and intent of such objections to be observed in the remainder of the copy not specifically criticized. Promotional activities will include any devices for informing the public or the profession.

11. Enrollment. Enrollment practices shall be based on sound actuarial principles such as will not expose the plan to adverse selection. Group enrollment is recommended until further experience warrants the acceptance of individuals.

12. It is understood that the plan of organization will conform with state statutes and that the plan will operate on an insurance accounting basis with due consideration for earned and unearned premiums, administrative costs and reserves for contingencies and unanticipated losses. Supervision should be under the appropriate state authority.

13. Each accepted plan must submit periodic reports of financial and enrollment experience in the manner prescribed by the Council.

Duration of Acceptance. Acceptance of plans by the Council will be for a period of two years or until revoked (provided they comply with the standards during this period) at the end of which all contracts and financial statements be re-examined. A shorter period of approval may be granted at the discretion of the Council. Any changes in contracts or literature during the period of acceptance must be submitted to the Council for review.

POSTPONEMENT OF WAGNER-MURRAY BILL

March 8th, the Senate Committee on Labor and Education announced that the hearings on the Wagner-Murray Bill which were announced to begin on March 18th will begin on Tuesday, April 2nd.

According to the program which the Committee is arranging representatives of the Medical Societies will be called about the third of April.

Indications are that many people will want to appear before the Committee both for and against the bill, and it is wise for those who wish to be heard that they make application immediately to Senator J. E. Murray, Senate Office Building, Washington, D. C., for the opportunity to be heard.

Those who may not wish to come to Washington to speak in person may prepare and submit a statement to Senator Murray asking that the statement be included in the report of hearings in the same manner as if it had been delivered in person. All of these statements, we are assured, will be printed in the report of the hearings.

The Committee on Interstate and Foreign Commerce of the House of Representatives to which the Dingell Bill was referred has made no announcement with regard to hearings.

We from this office will be glad to assist any physician secure a place on the program if we are requested to do so, and send us a copy of the letter of application written to Senator Murray when you ask our help.

BULLETIN NO. 26—NEW BILLS INTRODUCED

S. 1777 by Mr. Willis of Indiana (for himself, Mr. Hart, Mr. Hawkes, Mr. Hickenlooper, Mr. Smith, Mr. Stanfill, Mr. Wiley, and Mr. Young) January 30. A Bill to assist the agencies of scientific and technological education and the development of the nation and to establish a National Science Foundation. Referred to the Committee on Commerce.

Comment: Creates a national science foundation composed of fifty members to be selected by the President of the United States from nominations presented to him by the National Academy of Sciences and other recognized national organizations. (Further analysis, J.A.M.A., February 9).

S. 1779 by Mr. Pepper of Florida, January 30. A Bill to authorize the Federal Security Administrator to assist the States in matters relating to social protection, and for other purposes. Referred to the Committee on Education and Labor.

Comment: Introduced at the request of the American Social Hygiene Association. During the war both the Army and the Navy exercised jurisdiction of this character in the areas about their stations and camps. The object now is to continue this surveillance. (J.A.M.A., February 9).

S.J. Res. 137 by Mr. Morse of Oregon, January 30. Joint Resolution to authorize the Secretary of Labor to make certain studies of the health of school children, and for other purposes. Referred to the Committee on Education and Labor.

Comment: Introduced at the request of a women's league. It provides means for studying the health and physical status of children of school ages, the facilities and services offered by schools for the correction of discovered physical defects, and for demonstrating methods of conducting school health examinations and providing school health services. (J.A.M.A., February 9).

H.R. 5206 by Mr. Sparkman of Alabama, January 22. A Bill to establish a Federal Commission for the Physically Handicapped, to define its duties, and for other purposes. Referred to the Committee on Labor.

Comment: Provides for the creation of a Federal Commission for the Physically Handicapped which shall consist of seven members: a president and a secretary appointed by the President of the United States; the Director of the present Office of Rehabilitation; the Principal Employment Specialist for Physically Handicapped, now in United States Employment Service offices; a representative of the Children's Bureau; a representative of the Public Health Service; and a representative of the Civil Service Commission. (J.A.M.A., February 9).

H.R. 5234 by Mrs. Bolton of Ohio, January 24. A Bill to authorize the Federal Security Administrator to assist the States in matters relating to social protection, and for other purposes. Referred to the Committee on the Judiciary.

H.R. 5296 by Mrs. Luce of Connecticut, January 30. A Bill to amend the Internal Revenue Code, as amended, and for other purposes. Referred to the Committee on Ways and Means.

Comment: Would give physicians, surgeons and dentists additional credit for charitable work as a deduction on their income tax. (J.A.M.A., February 9 .

H.R. 5332 by Mrs. Luce of Connecticut, February 1. A Bill to create a Department of Science and Research. Referred to the Committee on Ways and Means.

Comment: Described in J.A.M.A., February 9.

ACTION ON BILLS

H.R. 2716. This bill, providing health programs for government employees, was reported out of committee on February 1, Report 913.

H.R. 3755. Hearings were held during the last week of January on this bill to establish an Optometry Corps in the Army Medical Corps.

S. 191. The Hill-Burton Hospital Construction bill has passed the Senate, as you will recall, and has been referred to the House Committee on Interstate and Foreign Commerce. This Committee has announced that hearings will be held on the bill beginning March 7.

No other hearings on bills in which we are interested have been announced.

FURTHER ANALYSIS OF S. 1606

Title I, Part A provides (a) that Congress shall appropriate each fiscal year a sum sufficient to assist the states in developing effective measures for the prevention, treatment and control of venereal diseases; and (b) that the sum of $10,000,000 be appropriated each fiscal year for the purpose of assisting the states in prevention, treatment and control of tuberculosis.

Authority already exists for Congress to appropriate money for these purposes under Section 601, Title VI of the Social Security Act (Public Law, Title 42, Section 246). In the annual Public Health Report for 1944 it is stated that payments to the states for general health work under Title VI of the Social Security Act totaled $10,000,000 and in addition, for the control of the venereal diseases $9,700,000. Legislation approved July 1, 1944 (Public Law, Title 42, Section 246 (b) made available to the Public Health Bureau an appropriation of $10,000,000 for the fiscal year of 1945 for tuberculosis control. Therefore these two sections of the Wagner bill contribute nothing new.

Part C of the bill, providing for grants to states for medical care of needy persons, is the only new material of Title I. All the other sections might be said to have been used as window dressing for Title II. A bill drafted without these preliminary sections would be far less attractive and would not be likely to gather much support.

BULLETIN NO. 27

Whether or not the report can be taken as an indication of public attitude, the Commission that Governor Dewey appointed a year and a half ago to make a study of health conditions in New York State and to report with suggested legislation for a state-wide compulsory health program, has made a negative report. Of the nineteen members of the Commission, nine have submitted a majority report. In addition, there are four different minority reports. An excerpt from the majority report reads: "The Commission is not preparing, however, to recommend to the legislature any plan for medical care insurance and hospital insurance financed on a compulsory basis."

HEARINGS

February 25—The House Ways and Means Committee announced February 19 that it will begin hearings on social security legislation, particularly recommendations contained in the report of its technical staff. This report has just come from the printer. The study is devoted entirely to problems of old age and survivors' insurance, public assistance and unemployment compensation. Our information at present is that the Committee does not expect to take up health legislation.

February 28—Hearings before the Health Section of the District of Columbia Committee on H. R. 491, Lemke Anti-vivisection bill.

March 7—Hearings to be held before the House Committee on Interstate and Foreign Commerce on S. 191, Hill-Burton Hospital Construction bill.

March 18—Hearings on S. 1606, the latest Wagner-Murray-Dingell bill, to be held before the Senate Committee on Education and Labor.

In our previous bulletin we reported the introduction of S.J. Res. 137 by Senator Morse of Oregon. Since then we have learned that the Oregon legislature recently enacted legislation which directed the superintendent of public instruction to: (1) provide health examinations in the elementary and secondary schools, (2) provide and recommend program materials, (3) provide checks and standards by which the progress of individual pupils and the program of schools can be evaluated and the schools rated "in terms of their meeting the purposes of this act," (4) coordinate the activities of governmental agencies which carry on functions in the schools related to the purpose of the act, (5) employ the necessary personnel and (6) make necessary rules and regulations. It is reported that the Oregon State Federation of Women's Clubs strongly endorsed the measure.

HOSPITAL NEWS

BEATRICE: The Mennonite and Lutheran hospitals recently asked the county board of supervisors to increase its allowance for hospitalization of county patients. The county has been paying $2.50 a day.

CLEARWATER: The Memorial Hospital drive reported over $20,000 collection in the first few days of its campaign.

FREMONT: For the first month since the Dodge County Community hospital was opened six years ago, there were no deaths at the institution during February. The month went without a death despite an all-time high of 1,250 patient days.

LEXINGTON: The Brewster Clinic and Hospital announces its affiliation with the Nebraska Blue Cross Plan in March.

HASTINGS: The Mary Lanning Hospital admitted a total of 325 patients during January. The patients stayed an average of eight days. Two new wings are under construction.

LINCOLN: The Lincoln General Hospital has reopened a section of one wing which the shortage of nurses forced to close last December.

NELIGH: Funds for the proposed Memorial Hospital are coming in steadily and plans are going forward in carrying the project to a successful conclusion according to the local press.

PAWNEE CITY: After thirty years operation of the hospital, Dr. W. R. Boyer has announced that he would soon retire. A committee of local citizens has petitioned the County Board to purchase the hospital for County use. The doctor offered to sell the hospital for $15,000.

SPAULDING: A drive for funds to build an addition to the St. John's Sullivan Memorial Hospital is sponsored by the local community club.

WEST POINT: About half of the total two hundred thousand dollar fund has been reported in the latter part of February. Hospital board members expressed hope to speed up the drive for funds this spring.

All state hospitals under the board of control have been approved unconditionally by the American college of surgeons it was announced recently by Mrs. Lorena Hahn, chairman. She also announced that all hospitals, except Lincoln state, have received approval for residency or fellowship. The application of Lincoln state is pending and approval is expected Mrs. Hahn said.

NEWS and VIEWS

A series of health conferences was held in several sections of the state in February.

In describing how the Nebraska health planning committee came about, H. G. Gould, assistant director of extension service of the university said the group was organized to co-ordinate the thinking and planning of the health organizations of the state.

The committee has four objectives, Gould said:

1. Adequate medical care for all citizens regardless of location geographically or financial status.
2. Minimum hospital facilities within the reach of all persons regardless of economic position.
3. To work toward a strong state health department, adequately staffed and financed.
4. To conduct a broad educational program for all so that people will know the health facilities and services available to them.

The town of Edgar is calling for a physician. Dr. O. C. Asa who had practiced there for years retired recently leaving the community without a doctor.

"Blood, the Journal of Hematology," is a new publication which in accordance with its title will devote itself to papers on blood and its dyscrasias. The publishers are Grune and Stratton, Inc., New York. The editor is William Dameshek, M.D., of Boston. Associate editors are Charles A. Doan, M.D.; Thomas H. Ham, M.D.; Roy R. Kracke, M.D.; Nathan Rosenthal, M.D., and Maxwell Wintroube, M.D.

SUMMER DIARRHEA IN BABIES

Casec (calcium caseinate), which is almost wholly a combination of protein and calcium, offers a quickly effective method of treating all types of diarrhea, both in bottle-fed and breast-fed infants. For the former, the carbohydrate is temporarily omitted from the 24-hour formula and replaced with 4 packed level tablespoonfuls of Casec. Within a day or two the diarrhea will usually be arrested, and carbohydrate in the form of Dextri-Maltose may safely be added to the formula and the Casec gradually eliminated. One to three packed level teaspoonfuls of a thin paste of Casec and water, given before each nursing, is well indicated for loose stools in breast-fed babies. For further information, write to Mead Johnson & Company. Evansville 21, Indiana.

OFFICE OF THE SURGEON GENERAL

GENERAL KIRK OUTLINES THE REMAINING TASK

The care of the war's wounded is only a part of the medical responsibility of the Army Medical Department, with five thousand neuropsychiatric patients, one thousand tropical disease patients, and three hundred blinded soldiers still in Army hospitals, Major General Norman T. Kirk, Surgeon General of the Army, said in a recent talk at the annual dinner of the Society of Surgeons of New Jersey.

"In the nine centers specializing in hand and plastic surgery, there are 11,500 patients needing an estimated 31,000 operations," General Kirk pointed out. "The plastic surgeons who had been working twelve to fourteen hours daily, six days a week, to carry this load were most of them eligible for separation on points. It was necessary to freeze them in the service. I explained to them why we had to do it. They understood, and they are still doing their job.

"Wherever American soldiers are on duty anywhere in the world, there must be medical officers with them. The flow of battle casualties has mercifully ended. But young men are still subject to all the usual diseases, from colds in the head to acute appendicitis. They are still subject to accidents . . . they still must be protected against tropical disease. They still must be protected from the diseases born of wartime devastation and malnutrition. They still must be looked after at staging areas and on their way home. They still must be examined most thoroughly at separation centers, both for their own sakes and for the sakes of the taxpayers who will later foot the bill for errors, as well as for genuine disabilities. Those who will replace them at home and overseas must still be examined at induction centers. Prisoners of war must still be cared for. Displaced persons are frequently medical problems before they are anything else."

In 1940, just after the fall of France, the General said, the United States Army consisted of approximately 250,000 men and the Medical Corps of about 1,600 officers, of whom nearly 75 per cent were in the Regular Army. By December 7, 1941, there were 1,613,000 men in the Army and 11,390 officers in the Medical Corps. Although the increment in the Army was chiefly through the Selective Service, that of the Medical Corps consisted entirely of volunteers.

"In short, the Medical Corps can no more be permitted to fall apart, to 'demobilize by demoralization,' than can the rest of the Army," General Kirk concluded. "The hardship to be borne by men who must remain in uniform longer than they like is simply an essential part of what has gone before. It cannot be evaded without placing in jeopardy the victory won in combat. It is indispensable to the completion of the job."

SN-7618 EFFECTIVE ANTI-MALARIAL DRUG

The new anti-malarial drug, SN-7618, which the Army Medical Department played an important part in developing, has been found to be superior in many ways to quinine or atabrine, according to a recent announcement by the Office of the Surgeon General.

Studied in collaboration with the Interservice Board for the Coordination of Malarial Studies, SN-7618 was tested in experiments at Harmon General Hospital, Longview, Texas, and Moore General Hospital at Swannanoa, North Carolina, in addition to some overseas theaters of operations.

Designed to obtain information on the value of the drug in controlling the symptoms and fever occurring in acute attacks of malaria, these studies included the observation of more than 600 malaria-stricken soldiers, who were administered different amounts of the drug in from one to seven days. When notations had been made of symptoms such as the passing of the fever and the disappearance of malarial parasites from the blood stream, the patients were kept in the reconditioning section to determine the possibilities and time interval for relapse.

Comparisons were made of the results with those obtained in similar studies of atabrine, quinine and other new drugs. It was found that one day's treatment with SN-7618 promptly controlled fever and other symptoms and that the parasites rapidly disappeared from the blood.

Observation periods of four months showed that 75 per cent of the men tested suffered relapses. Though this number is similar to that found in experiments with quinine and atabrine, the interval between attacks was found to be longer when SN-7618 was used. Patients soon acquired a preference for the drug because of its rapid action, which permitted them to leave the wards within two or three days.

Though SN-7618 is considered superior to other anti-malarial drugs in that it does not discolor the skin, upset the stomach, or cause a buzzing in the ears, it is not a one-treatment cure for vivax malaria. Weekly doses of the drug can be taken to avoid relapse after an acute attack, but upon discontinuation of the treatment further relapses may occur.

SN-7618 was so named because it was the 7618th drug tested in the four-year program sponsored by the Committee on Medical Research. The program was financed by the Office of Scientific Research and Development.

NEBRASKA STATE HEALTH DEPARTMENT

DISTRIBUTION OF DRIED BLOOD PLASMA

During the war large quantities of blood were given by the American people through the American National Red Cross from which dried plasma was prepared for the armed forces. After the war was over, the estimated needs of army and navy for the next five years were provided for. The surplus over and above these needs amounted to one and a quarter million packages. This amount was transferred to the American National Red Cross to be made available for civilian use.

The Area Medical Directors of the American National Red Cross have made arrangements with the state departments of health for a satisfactory distribution plan within each state.

Nebraska State Department of Health has about completed its plans for distribution of dried plasma to hospitals for the use of physicians. The plan is for hospitals, that have agreed to provide proper storage and to keep the supply available to physicians as needed, to act as local supply depots. It is anticipated that this plasma will be available to physicians not later than March 1.

While this plasma may be administered in the hospital providing storage, the arrangement is that it be equally available for use by physician outside the hospital, or for use in another hospital. An initial unit is to be furnished each physician located in areas inaccessible to such storage places.

Each physician in the state has received a letter of explanation concerning the plasma. A form entitled "Certificate of Use" will accompany each unit of the plasma sent out. This certificate signed by the physician and returned to the State Department of Health will serve as authorization for replacement of the plasma. The completed certificate may be returned directly by the physician, or may be returned by the hospital serving as the supply depot.

The letter to the physicians is accompanied by a copy of directions for putting the dried plasma into solution and for administering it to the patient.

Each hospital agreeing to act as an agent has received full instructions. All general, maternity and orthopedic hospitals in the state were invited to act as storage depots. An agreement is signed by the superintendent as guarantee for this cooperation.

The American National Red Cross receives a signed receipt for all dried plasma delivered to the State Department of Health for use in this distribution plan.

No charge is to be made for the plasma. Great good should accrue from this cooperative plan in Nebraska as well as in other states of the nation.

L. O. VOSE,
Director of Laboratories,
State Department of Health,
Lincoln, Nebraska.

THE NATIONAL FOUNDATION FOR INFANTILE PARALYSIS

A total of more than $41,000 was disbursed by Nebraska Chapters of the National Foundation for Infantile Paralysis in behalf of infantile paralysis cases during the calendar year of 1945.

"Quick summary" reports received by Clinton Belknap, Field Representative for the National Foundation for Infantile Paralysis from County Chapters covering the calendar year of 1945 indicate that at least 98 of the 120 reported new polio cases in the state during 1945 received help from local County Chapters.

This aid ranged from payment of emergency ambulance service in some instances to full coverage of medical and hospital care in other cases where the need for financial assistance was more acute, thus fulfilling the pledge of the National Foundation that no victim of infantile paralysis shall go without medical care for lack of funds regardless of race, creed, color or age.

Expenditures and obligations incurred by the local County Chapters in behalf of these 98 new cases totaled $22,182.16. During the same period of time, local Chapters gave aid totaling $10,922.15 to 55 polio patients afflicted with the disease in previous years and who are still under care.

A total of $3,147.79 was paid out in sponsoring doctors, nurses and physical therapists for refresher courses in the modern care and treatment of infantile paralysis.

An additional amount of $5,476.30 was disbursed by County Chapters for infantile paralysis equipment for hospitals and clinics.

Four of the County Chapters in Nebraska exhausted their local financial balances during 1945 in rendering aid to infantile paralysis patients and found it necessary to secure advances from the National Headquarters of the Foundation totaling $6,300. These four Counties include Morrill, Cuming, Kearney and Seward.

The Nebraska State Department of Health reports 10 known deaths from infantile paralysis during the calendar year of 1945.

POLIOMYELITIS IN NEBRASKA—MORBIDITY AND MORTALITY AS REPORTED BY CASES FOR YEARS INDICATED

Year	Cases	Deaths
1920	13	N.A.
1921	64	20
1922	24	3
1923	107	19
1924	14	9
1925	125	42
1926	20	15
1927	115	22
1928	38	10
1929	9	8
1930	287	48
1931	38	15
1932	31	13
1933	25	6
1934	21	9
1935	13	10
1936	24	10
1937	218	44
1938	9	7
1939	49	8
1940	184	22
1941	29	11
1942	142	27
1943	140	21
1944	99	10
1945	120	10

The Nebraska Society for Crippled Children joins the National Society in the 13th annual Easter Seal Sale, March 21st. This will continue through April 21st.

Funds received from this campaign will be used to aid handicapped children. The Society's major emphasis is on combating rheumatic heart disease, and to secure remedial training for the 18,000 speech handicapped children in Nebraska — where the handicapped children are served as circumstances and funds permit.

DEATHS

Albert Lloyd Cooper, Scottsbluff. Born in Hayes Center, Nebraska in 1889. Graduated from the University of Nebraska Medical College in 1919. He located in Morrill and four years later came to Scottsbluff where he immediately became interested in civic affairs, as well as in fraternal and professional activities. Thus he served on the city council, he was secretary of the Panhandle Cooperative Society. He served in many capacities in his County and State Medical Societies. For many years he was Councilor of the Twelfth District Medical Society; in 1943 he was elected President of the Nebraska State Medical Association. For the past fifteen years he had maintained a great interest in flying and received his license ten years ago. Dr. Cooper attended the Mid-winter session of the Council of the Nebraska State Medical Association, Lincoln, on February 17, 1946, and on the following morning while flying home he encountered heavy fog and attempted to return to Lincoln, when his plane crashed near Elm Creek. He died from burns about one-half hour later. The doctor is survived by his wife, three sons and a daughter. His mother also survives.

DR. A. L. COOPER

Ralph Philip Higgins, Ansley. Born in Hastings in 1888. Graduated from the University of Nebraska College of Medicine in 1912. Located in Ansley in 1913, served in World War I, discharged as a Captain in the Medical Corps of the Army, where he served with 6th Division. He returned to Ansley immediately and remained in practice until the time of his death February 22, 1946. He is survived by his wife, and five children.

Charles F. Kirkpatrick, Ashland. Born in Ohio in 1858. Graduated from Columbus Medical College in 1882, came to Ashland in 1886. He was prominent in church affairs and community activities. He was one of the oldest doctors in the state, and practiced until shortly before his death on February 24, 1946. He is survived by one grandson, and two great grandchildren.

Bessie Andrus Vandeventer Kellogg, Lincoln. Born in 1885. Graduated from Wayne Medical College in 1922. Practiced in Detroit and Ft. Worth, Texas, until fifteen years ago when she came to Lincoln. She remained in active practice in Lincoln until the time of her death March 5, 1946. Surviving is one son living in Lincoln.

ROSTER OF NEBRASKA PHYSICIANS IN MILITARY SERVICE

As of March 15, 1946

* Killed in action ** Released from Service † Died

ADAMS COUNTY
**Anderson, Martin F., Hastings
**Coen, Robert A., Ingleside
**Foote, Donovan B., Hastings
Harrington, A. E., Hastings
**Kingsley, D. W., Hastings
**Kostal, Otto, Hastings
**Nielsen, Juul, Ingleside
Shaw, W. L., Hastings
Uridil, C. F., Hastings
Weber, C. R., Hastings

BOONE COUNTY
Higgins, J. P., Albion

BOX BUTTE COUNTY
**Kennedy, J. F., Alliance
**Kuncl, Joseph, Alliance
Morgan, R. J., Alliance
Sorensen, C. N., Alliance

BROWN COUNTY
**Prescott, Kenneth E., Long Pine

BUFFALO COUNTY
Albertson, L. C., Kearney
Dickinson, L. E., Ravenna
Hayes, C. B., Kearney
Wilcox, M. B., Kearney

BURT COUNTY
**Lukens, Isaiah, Tekamah

BUTLER COUNTY
Burdick, D. E., David City

CASS COUNTY
Anderson. R. R., Nehawka
**Eaton, Wilbur S., Plattsmouth
**Kunkel, L. N., Weeping Water
**Formanak, C. J., Murdock
**Worthman, H. W., Louisville

CHEYENNE COUNTY
**Bitner, C. U., Sidney
Bush, Stuart K.

CLAY COUNTY
Richter, Donald A., Sutton

COLFAX COUNTY
**Myers, H. D., Schuyler
**Tepley, Gene L., Howells

CUMING COUNTY
Krause, Richard A., West Point
Robbins, H. M., West Point
Thompson, L. L., West Point

CUSTER COUNTY
Koefoot, Ted, Jr., Broken Bow
Leonard, Patrick, Broken Bow

DAWES COUNTY
**DeFlon, Eric G., Chadron
McElligott, E. W., Chadron
**Sinclair, R. D., Chadron

DAWSON COUNTY
Anderson, A. W., Lexington
**Norall, V. D., Lexington
**Olsson, Paul Bryant, Lexington

DEUEL COUNTY
**Smith, N. R., Big Springs

DIXON COUNTY
Coe, C. Max, Wakefield

DODGE COUNTY
Byers, R. C., Jr., Fremont
**Merrick, A. J., Fremont
**Morrow, H. H., Fremont
**Sobota, J. E., North Bend

DOUGLAS COUNTY
**Holden, W. J., Elkhorn
OMAHA
Alliband, Geo. T.
**Arnsten, L. L.
Avery, Hiram Henry
**Bantin, C. F.
Barber, Herbert Gordon
**Barr, Joseph Harold
**Best, R. Russell
Bowers, Warren F.
**Brazer, John C.
**Burns, B. C.
Carp, Oscar, Int.
**Cash, Paul T.
**Cochran, Robt. M., Int.
**Cohen, Louis Allen
**Comine, Jos. J.
Crawford, Wm. Henry
**Crynes, S. F.
Curti, Ralph Elmer
**Day, Robt. Jerome, Int.
**Deakin, Thos. Wm.
**De Long, Henry Livesey
Dolce, Daniel D., Int.
**Donelan, James P.
Dornberger, G. R.
**Dowell, D. A.
**Downing, John Edwin
**Dworak, Henry L.
Everitt, Neill J.
**Faier, Samuel Z.
**Fellman, Abe C.
Finegan, Jas. F.
Fogarty, Chas. James
Freymann, J. J.
**Gatewood, John W.
**Green, M. C.
**Greenberg, Maynard
**Greene, Arthur M.
Gross, Jos. J.
Green, Chas. Joseph
**Haffke, Oscar William
**Hansen, Clifford H.
Harms, H. H., Int.
**Hardy, C. C.
Hartford, Thos. J.
Hayes, Jack Murray
Hennegan, Geo. F.
Henrich, Leo. Chas.
**Heywood, Leo. T.
**Hirschman, J. H., Int.
Hoekstra, Clarence, S., Int.
**Holmes, W. E.
**Horwich, Joe Maurice
Hubenka, A. H.
**Hungerford, Wm. E.
**Iwersen, Frank J.
Jensen, Werner P.
**Jonas, A. F.
**Kelley, J. Whitney
**Kelley, Wm. E.
Kemp, Wm. T.
**Kiltz, Richard Clyde
Klabenes, Frank J.
Knauff, Harry A., Int.
**Korth, Zeno N.
Koutsky, Jas. John, Int.
Krieg, Jacob J., Int.
Le Mar, J. D.
**Levine, Victor E.
Lewis, Raymond G.
Lierman, C. E., Int.
**Longo, Jos. A.
**Mackenbrock, F. C.
Mangiameli, Carl L.
**Mangimelli, Saml. T.
Martin, Paul J.
**McLaughlin, Chas. W.
**Millett, Clinton C.
**Moran, C. S.
Mooater, Chas. J., Int.
**Morrow, Paul
**Muldoon, John H.
Murphy, Albert V.
Nelson, Floyd
**Nemec, Edward Chas.
Nurenberger, Robt. E.
**O'Brien, Donald J.
**Owen, D. R.
Patton, John Erwin
Peterson, Wendell Case
**Plechas,. Nicholas Peter
**Popelar, M. V.
Penry, Richard E., Int.
**Rasgorshek, R. H.
**Read, Paul
**Redgwick, J. P.
Reiner. Walter M., Int.
**Rose, Forrest I.
**Schaefers, Richard Henry
Senter, Vance E., Int.
**Shamberg. Alfred H., Int.
**Staubitz, H. F.
**Steinberg, M. M.
*Stokes, Harry B.
Strand, Clarence Johnson
**Tamisiea. John A.
Taylor, Willis
**Thompson, C. Edward
**Tompkins, Chas.
**Townley, Robt. Hadley
**Vroman, Donald Clay
Waters, C. H., Jr.
**Weinberg, J. A.
Wendland, John P.
**Wilson, Donald J.
**Wright, W. D.
**Wyrens, Raymond J.
**Young, Geo. Alex., Jr.

FILLMORE COUNTY
**Huber, Paul J., Exeter
Tucker, John G., Milligan

FRANKLIN COUNTY
Rosenberg, Davis Sam, Franklin
Williams, Martin P., Franklin

FURNAS COUNTY
**James, Louis D., Oxford

GAGE COUNTY
**Brown, R., Beatrice
**Bryant, A. R.
**Elias, Houghton F., Beatrice
**McCleary, D. P., Beatrice
**Rathburn, S. M., Beatrice
Rush, Weaver A., Beatrice
Smartwood, F. M., Adams
**Waddell, Wm., Wayne

GARFIELD COUNTY
**Cram, Roy S., Burwell

GREELEY COUNTY
**Kafka, A. J., Scotia

HALL COUNTY
Campbell, John F., Grand Island
Johnson, E. George, Grand Island
**McDermott, K. F., Grand Island
McGrath, W. M., Grand Island
Rich, Edward W. L., Grand Island
**Royer, Howard, Grand Island
Ryder, Frank D.. Grand Island
**Watson, Donald P., Grand Island

HITCHCOCK COUNTY
Brown, Kenneth W., Stratton

HOOKER COUNTY
**Buhl, Clayton Edwin, Mullen

HOWARD COUNTY
**Hynes, W. P., Washington, D. C.
**Wengert, D. B., St. Paul

JEFFERSON COUNTY
**Ainlay, Geo. W., Fairbury
Lynch, Geo. M., Fairbury
Luce, Roscoe P., Fairbury
**Shupe, Lester L., Fairbury

JOHNSON COUNTY
*Prachar, Gordon, Tecumseh

KEARNEY COUNTY
Sutton, Bruce, Minden

KIMBALL COUNTY
**Lipp, Frank E., Kimball

KEITH COUNTY
**Vandiver, H. A., Ogallala

KNOX COUNTY
Carrig, M. H., Bloomfield
Green, Carl Raymond, Niobrara

LANCASTER COUNTY
LINCOLN
**Arnold, C. H.
**Anderson, Jas. B.
Bartholomew, P. H.
Baskin, Abraham H.
Calhoun, O. V.
**Campbell, W. Allen
Colbert, Morgan R.
Crook, Glen Delroy
Elliott, Clarence
Everett, H. H., Jr.
**Fechner, A. H.
**Ferciot, C. F.
Frazier, M. D.
**Garlinghouse, Richard
**Gibson, L. V.
**Gray, Richard
Greer, Rex E.
**Haentzschel, L. E.
Haley, Robert R.
**Harvey, Glen W.
Heidrich, John Paul
**Hobbs, E. T.
Johnson, R. W.
Lotman, Harry Alfred
**Loudon, J. R.
**Marx, Paul Donald
**Merideth, John A.
**Miller, N. R.
**Miller, S. D.
**Morton, H. B.
**Munger, Horace
**Neely, J. Marshall
**Palmer, R. B.
**Peterson, J. C.
**Podlesak, J. J.
**Reed, E. B.

**Rembolt, R. R.
Rider, Larry D.
Reynolds, Verne J.
Royal, Paul
**Sharrar, Lynn E.
**Snipes, J. J.
Stein, Robt. J.
**Still, Richard M.
**Taborsky, A. F.
**Teal, Frederick F.
**Teal, Philip
**Underwood, G. R.
**Whitham, R. H.
William, Russell I.
**Wood, M. A.
**Zinneman, H. H.

LINCOLN COUNTY
Anderson, Gustave Theodore, N. Platte
Anderson, Thorwald R., N. Platte
Clarke. H. L., Jr., North Platte
**Dent, T. E., North Platte
Hirschfeld, Beryl, North Platte
**Hudgel. L. E., North Platte
**Long, Fred P., North Platte
**Millhouse, John H., North Platte
†Redfield, J. J., North Platte
**Schneider, Albert L., Brady
**Shaughnessy, E. P., North Platte
**Waltemath, Glenn, North Platte

MADISON COUNTY
**Brauer, S. H., Norfolk
**Ingham, Chas. G., Norfolk
**Salter, Geo. B., Norfolk
**Sandritter, Gilbert Lee, Norfolk
**Schwedhelm, A. J., Norfolk

MORRILL COUNTY
**Pugsley, Geo. W., Jr., Bayard

NEMAHA COUNTY
**Tushla, F. M., Auburn

OTOE COUNTY
Campbell, G. C., Nebraska City
**Ewing, Ben. E., Nebraska City
**Kenner, W. C., Nebraska City
Thorough, Paul H., Syracuse

PAWNEE COUNTY
Harmon, Leo D., Pawnee City
Lowe, DeWitt S., Pawnee City

PHELPS COUNTY
Brewster, Donald E., Holdrege
Foley, Thos. H., Holdrege
**Matson, Roy M., Holdrege
**Reeder, R. C., Holdrege
**Shreck, H. W., Holdrege

PLATTE COUNTY
**Anderson, Ronald C., Columbus
**Koebbe, E. E., Columbus
O'Donnell, Reynolds J., Columbus

POLK COUNTY
**Brillhart, Everett G., Shelby

RED WILLOW COUNTY
Brimmer, K. W., Washington, D.C.
**Morgan, Donald H., McCook

RICHARDSON COUNTY
**Bozarth, Elton P., Humboldt
**Ketter, W. D., Falls City
Lennemann, Ernest. Falls City
Youngman, R. A., Falls City

SALINE COUNTY
**Mack, M. A., Crete
**Travnicek, F. G., Wilber

SAUNDERS COUNTY
**Hervert, Wm. Jas., Valparaiso
**Rogers, E. A., Wahoo

SCOTTS BLUFF COUNTY
**Alderson, Donald M., Gering
Black, Eugene W., Gering
Campbell, Louis S., Scottsbluff
**Gentry, Willard M., Gering
Hanna, Joe T., Scottsbluff
**Ohme, K. W., Mitchell
Rosenau, John A., Scottsbluff
**Zierott. L. L., Scottsbluff

SEWARD COUNTY
Clarke, Harry D., Seward

SHERIDAN COUNTY
Sullivan, Paul J., Rushville
**Wolf, Wm. Kenneth, Hay Springs

THAYER COUNTY
Panter, Lt. E. G., Hebron

THURSTON COUNTY
**Balg, Joseph, Winnebago
Bradley, J. D., Pender

WEBSTER COUNTY
Obert, Francis C., Red Cloud

VALLEY COUNTY
**Kruml, Jos. Geo., Ord
Round, John N., Ord

YORK COUNTY
Kilgore, Robert N., York
Kilgore, W. S., York
Karrer, R. E., York

News of Veterans

Doctors recently dismissed from the armed forces are urged to communicate with editor regarding their whereabouts.

Dr. O. A. Kostal has resumed his practice in Hastings.

Dr. Herbert Worthman has resumed practice in Louisville.

Dr. T. W. Deakin is associated with Dr. Farner at Valentine.

Dr. C. H. Babbitt is associated with Dr. G. N. Grimm at Sidney.

Dr. Willard H. Hill is associated with Dr. R. T. Van Metre at Fremont.

Dr. Harry G. Williams, formerly of Omaha, has opened an office in Decatur.

Dr. I. Lukens has returned to Tekamah to resume his association with Dr. L. E. Sauer.

Dr. A. E. Harrington announces the resumption of his practice at 227 N. Denver, Hastings.

Dr. Hiram D. Hilton will take a year's work at Mayo Clinic before resuming practice in Lincoln.

Dr. D. B. Wengert is associated with Dr. A. E. Buchanan in the general practice of medicine at Fremont.

Dr. Robert Hillyer, Lincoln, has received a nine months' appointment in surgery at Kings County Hospital, Brooklyn.

Dr. C. N. Sorensen has resumed practice with Dr. J. F. Kennedy, who re-entered practice in January of this year, at Copsey Clinic, Alliance.

Dr. J. Milton Margolin announces his association with Dr. Morris Margolin at 902 Medical Arts Building, Omaha, in the general practice of medicine.

Dr. Clayton E. Buhl is helping Dr. W. R. Boyer of Pawnee City until Dr. A. B. Anderson is able to return to his practice. Dr. Anderson has been ordered to take several weeks' rest.

NEWS OF OMAHA VETERANS:

Dr. Robert F. Day is associated with Dr. Wayne M. Hull, Omaha.

Dr. Paul Morrow is temporarily located at 1614 Medical Arts Bldg.

Dr. Harry L. De Long has established his office at 2415 Fort Street.

Dr. Samuel Z. Faier is on terminal leave and taking special work in New York.

Dr. John G. Brazer has resumed his practice at the Benson Medical Center.

Dr. Clarence Bantin is officing at 626 Omaha Building and Loan Asociation Bldg.

Dr. Maynard M. Greenberg is associated with Dr. Herman E. Kully, 516 Medical Arts Bldg.

Dr. John W. Gatewood is associated with Drs. McGuire and Johnson at 326 Medical Arts Bldg.

Dr. Donald C. Vroman has resumed his association with Dr. Leon S. McGoogan at 813 Medical Arts Bldg.

Dr. William E. Kelley has resumed his practice in dermatology at 1104 City National Bank building, Omaha.

Dr. Charles Edward Thompson has resumed his practice of internal medicine at 530 Medical Arts Building.

Dr. Charles Tompkins will office at 3019 Ames Ave., until May 15 at which time his office at 302 So. 42nd Street will be ready for him.

Instruments of remarkable precision are used in scientific research on speech and hearing, according to the Sonotone research laboratories.

SOCIETIES

Secretaries of county and district societies are requested to send in the minutes of their meetings to The Editor, 218 Medical Arts Bldg., Omaha.

Dr. G. E. Peters, Randolph, was elected president of the Sioux Valley Medical Association, Sioux City, early in February.

Dr. John V. Reilly, Grand Island, was elected president of the Hall County Medical Society in February. Dr. W. J. Arrasmith is the new vice president, and Dr. Howard Royer, secretary-treasurer. Dr. A. P. Synhorst addressed the group on the treatment of gunshot wounds.

Otoe County Medical Society held its dinner meeting at St. Mary's Hospital, Nebraska City, February 11. The scientific program consisted of a paper by Dr. J. P. Tollman of Omaha.

Dr. M. O. Arnold was elected president of the Tri-County Medical association at a meeting held in February at St. Francis hospital.

Named vice president of the organization was Dr. William McGrath and Dr. Kenneth McDermott was named secretary-treasurer.

HUMAN INTEREST TALES

Communications bearing human appeal are solicited. They should be addressed to The Editor, Nebraska State Medical Journal, 218 Medical Arts Bldg., Omaha.

Dr. Homer Davis, Genoa, fractured his ankle as a result of slipping on ice.

Dr. L. W. Elwood will leave Emerson, Nebr., on April 1, to move to California.

Dr. I. C. Munger, Lincoln, was recently elected president of the Lincoln Dinner Club.

Dr. and Mrs. J. A. Lanspa, Tecumseh, are spending a vacation of several weeks in Cuba.

Dr. L. B. Brown has returned to Stratton after an absence of two months on account of ill health.

Dr. C. C. Snowden, Davenport, recently celebrated his ninety-second birthday, and is still practicing medicine.

A birthday party was given to Dr. H. W. Benson by Oakland business men. It was the doctor's 70th birthday.

Dr. J. A. Waggener, Humboldt, at the age of 93 years, celebrated his 70th anniversary as a physician in February.

Dr. Samuel A. Swenson, Hay Springs, has filed for the democratic nomination for congressman in the Fourth district.

On February 22, Dr. Raymond P. Carroll celebrated his twenty-fifth anniversary in the practice of medicine at Laurel.

Dr. Max Fleishman announces the opening of his office for the practice of diseases of the chest at 259-260 Aquila Court, Omaha.

The Brewster Clinic, Holdrege, announces the association of Dr. Donald W. Anderson of Chicago, recently separated from military service.

Dr. Clayton F. Andrews, Lincoln, was elected president of the Central States Shrine Association, at its annual meeting in Oklahoma City, Okla.

Dr. T. L. Weekes, Nebraska City, and Dr. D. E. Baca of Papillion, have been notified of their election to the International College of Surgeons.

Dr. Oran C. Asa, Ong, announced his retirement from the practice of medicine on his 75th birthday, March 9. The doctor has served Clay County for 38 years.

A BIT OF MEDICAL HISTORY

Culled from the Stromsburg "Headlight"

STROMSBURG DOCTORS OF THE PAST

Dr. A. Coleman was the first doctor to locate permanently in Stromsburg. He came here in 1877. Before that time Dr. J. N. Skelton who had homesteaded in Pleasant Home precinct looked after the sick in this part of the county. Dr. Coleman first located in Arborville, then came to Stromsburg, finishing his medical education after he had begun his practice. He served in the legislature and took a keen interest in matters political. He remained here until 1890, when he went to Denver. He afterwards located at Rocky Ford in that state and died in California in 1913.

Dr. Post was the next to locate here. He practiced in the early eighties and left for Denver sometime in the nineties, returning to Stromsburg a few years later and again took up the practice of medicine. He served as postmaster, left Stromsburg for Texas in 1914, and passed away in that state. Dr. Welker was located here in the eighties and remained but a few years. In the late seventies Dr. E. C. Houston was here in connection with one of the drug stores, but remained but a short time.

Dr. F. S. Owen, later in Omaha, came in 1885 and remained until 1891. In August, 1890, Dr. Cushman came to Stromsburg and went into partnership with Dr. Owen and after a few months bought out Dr. Owen's, practice and remained until his death in the spring of 1903.

Dr. H. S. McGavren followed Dr. Coleman, taking over his practice and remained about three years, selling out to Dr. R. C. Walker, who left Stromsburg in 1899. He located at Clarks and practiced there until his death. He was found dead in his buggy one cold night, presumably having frozen to death while making a call to the country.

Dr. Frank McConaughy was located in Stromsburg in 1885.

Dr. B. S. Peck was one of the early doctors in this town, but devoted his time to mercantile pursuits instead of to the practice of medicine, at least to any extent.

Dr. A. Anderson practiced here a number of years leaving for Lincoln in 1895.

Dr. M. C. Martin, Dr. Huffman, Dr. Smith, Dr. Lilijendahl and a Dr. VanDyke each located here in the nineties for a short time and then went elsewhere. Dr. Smith died in Wahoo, the others have gone to other fields and their whereabouts are unknown to the writer. Dr. Martin after leaving here became a veterinarian. Dr. V. J. Vestling was here in 1910, but stayed a short time.

Dr. Lowell Little was a practicing physician here from 1901 to 1903. Dr. Calkins was here from 1893 to 1895 and left for the Black Hills on account of his health. He is now located in southwestern Colorado.

Dr. L. E. Stanton was one of the early doctors, locating here with Dr. Coleman in 1886. He went to Colorado in 1900, and died at Sterling in that state.

Dr. C. A. Flippin and Dr. Geo. Flippin, father and son, practiced here for a number of years. Dr. George Flippin passing away in Stromsburg in 1929, and Dr. C. A. Flippin in California in 1930.

Dr. C. A. Anderson, a product of Polk County, graduated at Iowa City, Iowa, and began practicing in Stromsburg in 1891. In the fall of 1902, he moved into the new Wilson block and had a well equipped office of three rooms, with the first x-ray equipment in the county. During the first years of his practice he made his calls driving horses and buggies. Later he bought one of the first Fords, a coupe, without windshield and with kerosene lamps. He practiced his profession for twenty-three years without interruption, except time taken for three post graduate courses in Chicago. He was health officer during the first poliomyelitis epidemic in this community. At that time it was not so easy to get the co-operation of a community in health problems. He read a paper concerning the epidemic before the state Medical Association, which was published in Medical journals in this and other countries. Dr. Anderson died on March 5, 1921. Soon after his death the office was sold to Dr. Wm. Neville.

Dr. Neville located in Stromsburg in 1921 and later located at Utica. He sold his business to Dr. A. J. Edstrom who remained in the same office until he purchased the building used as an Orphans Home, and opened a hospital.

Dr. Johnson followed Dr. Edstrom at the old office and remained for a year or more when he sold to Dr. Curtis. Dr. Curtis remained in that office until he leased the Flippin hospital in 1930. He remained only a few years.

Dr. W. W. Dean located in Stromsburg in 1895 and remained here until 1898 when he sold to Dr. R. M. Malster and located at Sioux City, Iowa, where he died. Dr. Malster remained here until 1900 when he received a government appointment in Hawaii. His brother, Dr. J. C. Malster, was located in Chicago and had planned to go to Oklahoma but stopped off here to look after his brother's practice during his absence. He practiced here for more than thirty years, until his death in the 30s. He had been away several times taking post graduate work, and also served one term in the state legislature. He served as mayor of the city and had been a member of the Commercial Club since its organization. In the first poliomyelitis epidemic he took care of fifty cases, and read a paper on the subject, before the state medical society.

The doctors who were here in the days before the automobile, often suffered real hardships on their calls to the country. There were no all-weather roads and conditions were such that often a fence had to be laid down so the doctor could cross a section as the road was impassable and time and again he had to travel night and day in all kinds of weather, and they gave their best efforts under the most trying circumstances. As many settlers were poor, often the doctor could not collect the bill that was due him, but faithfully they made their calls even though they knew that there was small chances to collect. These old time doctors were real humanitarians, not to cast any reflections on the present day medical profession. Remember, there were no telephones and mostly the call for the doctor was by a man riding horseback, and many times as the tired doctor arrived home, another call was waiting for him and perhaps he had to travel over the same old road over which he had just returned.

Our present doctors, Drs. Anderson and Blome, were written up in "Who's Who" last year. Dr. Anderson began his practice in Stromsburg in 1929 and Dr. Blome in 1938. Dr. Easton located here in 1937, but remained but a short time, moving to Lincoln where he still resides.

Tuberculosis Abstracts

The general practitioner of medicine armed with newer methods of diagnosis and aware of the limitations of earlier diagnostic procedures can recognize tuberculosis in its early stages if he has a lurking suspicion it may be present. Such a suspicion will arise more often when recent developments in the diagnosis of chest diseases are reviewed.

The early diagnosis of diseases of the chest is more important today than at any time in the history of medicine. Mass x-ray surveys have revealed that intrathoracic abnormalities and diseases are more frequent than has hitherto been suspected. Modern diagnostic procedures make early diagnosis more easily attainable than before. Modern medical and surgical procedures have increased the chances of control or cure in most diseases of the chest.

Not so long ago the physician had to rely on the history, the physical examination and inadequate bacteriologic study of the sputum to establish a diagnosis of intrathoracic disease. Diagnoses could be made during this era only when the pathologic process was in an advanced stage. In recent years, however, fluoroscopy and roentgenography have become universally available. Bronchoscopy has been perfected so that it can now be performed with only slight discomfort to the patient and with little risk. Better bacteriologic technics have been developed. Aspiration biopsy of lung tumors is helpful in certain cases. The advance in medical and surgical therapy of chest lesions has kept pace with the diagnostic developments.

In spite of these facts, 60 percent of tuberculosis patients who are referred to sanatoriums have far advanced disease, and only 10 per cent have minimal lesions. Less than 25 per cent of the patients with cancer of the lung are referred for surgery before extension of the tumor has occurred. Recently

Overholt discovered that among 153 patients with cancer of the lung an incorrect diagnosis had been made in 95 cases (60 per cent). Treatment based on this had been maintained for long periods of time.

There may be several reasons for the delay in diagnosis. The patient frequently delays going to the physician because he has few or no symptoms; the presenting clinical picture often suggests another diagnosis; physical examination is notoriously unreliable; and the application of rigid diagnostic methods is often delayed because the physician has not developed a sufficiently strong suspicion of the underlying disease.

No attempt will be made to cover completely the symptoms associated with intrathoracic diseases, but the following points require emphasis. Almost all the diseases of the chest have an early asymptomatic stage, during which the pathologic process can be discovered only by x-raying the chest. This stage is apt to be so mild that the seriousness of the underlying lesion is overlooked. Cancer and tuberculosis may masquerade as each other, or as any of the commonplace diseases of the chest, or as an entirely foreign clinical picture, such as arthritis.

Physical examination of the chest is essential in the evaluation of any patient, but the time has come to recognize its limitations as well as its value. As early as 1933, Sampson and Brown reported that moderately coarse rales at an apex were the only reliable data obtained on physical examination, and added that these were present in only 27 per cent of the miniml cases. They analyzed the occurrence of the five cardinal signs and symptoms of tuberculosis in a series of 280 cases with minimal disease. Tubercle bacilli were found in the sputum in 35 per cent, rales in 27 per cent, hemoptysis in 26 per cent, pleural effusion in 12 per cent, and x-ray evidence of pulmonary tuberculosis in over 99 per cent. In carcinoma of the lung, physical signs are extremely unreliable and at best only suggestive.

Roentgenologic study of the chest should be a routine procedure in the examination of every patient admitted to hospitals and institutions. In the light of present knowledge, routine roentgenologic study of the chest is at least four times as important as blood cell counts, urinalysis or other routine procedures now in use. It also serves to protect patients and hospital personnel against the unsuspected active cases of tuberculosis that are constantly present in hospitals. Fluoroscopy or photofluorography require little time and can be done at a cost of only a few cents a patient.

In every patient suspected of having tuberculosis careful sputum studies should be performed in an attempt to confirm the diagnosis. To avoid delay, the use of routine smears should be avoided. These smears are so unreliable that a negative result is meaningless. Three consecutive seventy-two hour pooled sputum specimens should be concentrated. If they are negative on microscopic examination, the sediment should be cultured and inoculated into guinea pigs, and three consecutive gastric lavages examined immediately by the concentration method. Acid-fast bacilli found in gastric lavages when the sputum is negative should always be cultured and inoculated into a guinea pig to identify the acid-fact bacilli as tubercle bacilli. When these tests are repeatedly negative in a patient with a demonstrable parenchymal infiltration in the lung that is apparently active, the lesion is probably non-tuberclous, and other diagnostic procedures are indicated.

Any patient with a visible tumor or an unexplained density or suppuration in the lung especially if he is in the middle or older age group, should be suspected of having a pulmonary cancer. Such patients should be bronchoscoped immediately; 60 to 70 per cent of bronchiogenic carcinomas originate in the major bronchi, and a biopsy specimen to establish the diagnosis can be obtained.

Surgical exploration of the chest is a safe procedure, and should be utilized more frequently to determine the etiology of unexplained pulmonary lesions. Aspiration biopsy is used to secure tissue for pathologic study only in cases that are obviously inoperable. In patients in whom operation is possible, exploration is safer and more accurate.

The responsibility for the early apprehension of pulmonary disease rests largely on the shoulders of the general practitioner and the internist, since they are the first to see the patient. Their offices should and can be the greatest case-finding agencies in the entire field of medical practice. To make this possible, the limitations of the history, the physical examination and certain laboratory procedures must be more keenly appreciated, and rigid diagnostic procedures must be applied routinely.

—The Early Diagnosis of Diseases of the Chest, Norman J. Wilson, M.D., New England Jour. of Med., March 15, 1945.

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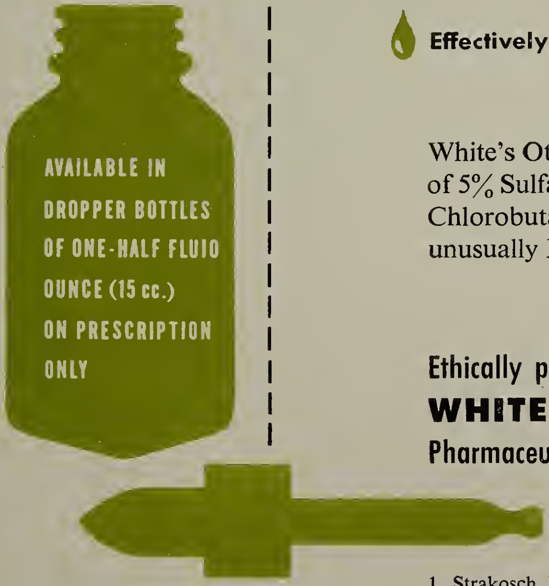

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1. Strakosch, E. A. and Clark, W. G.: Minn. Med., *26*:276-282 (March) 1943.
2. Tsuchiya, H. M., et al.: Proc. Soc. Exper. Biol. and Med., *50*:262-266 (June) 1942.

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JOURNAL EDITORIAL ASSAILS PROPAGANDA FROM CHILDREN'S BUREAU

In an editorial entitled "Dr. Martha M. Eliot—Propagandist for the Children's Bureau," The Journal of the American Medical Association in its March 9 issue attacks the "technic whereby the bureaucracies in Washington spend a considerable portion of their time and their funds in urging on the American people expansion of the funds and personnel allotted to those bureaucracies."

The editorial says in full:

From the Children's Bureau of the United States Department of Labor comes a newspaper release quoting Dr. Martha M. Eliot as urging a nationwide maternal and child health program because it will offer thousands of opportunities for professionally trained men and women. Of course it will also permit a tremendous expansion of the functions of the Children's Bureau and take away from fathers and mothers the personal responsibility and contacts with their own children that are significant in the American system of living. According to the release, Dr. Eliot said "We have come to accept the fact that the health of the nation's children is as much a public responsibility as their education." To support her propaganda Dr. Eliot cited some figures which are susceptible of misinterpretation; possibly these figures were cited in this manner so that they would be misinterpreted. "In one out of six counties," says Dr. Eliot, "there is only one doctor to 3,000 or more people. Under a good standard there would be one doctor available for every 750 people. In eighty-one counties there is no practicing physician." Dr. Eliot could have added that we had one doctor for every 750 people in the United States before the war but that the voluntary offering of their services by 60,000 physicians to the armed services changed the ratio. Since the United States is the only country in the world that ever had as many as one doctor to every 750 people one wonders on what basis her calculation of a good standard was reached. Dr. Eliot also estimates that we need 48,000 additional public health nurses to advise mothers in their homes about how to care for themselves and their children. She is much disturbed because three out of four counties have no regular monthly maternity clinic where mothers can learn how to prepare for safe childbearing. We were under the impression that the doctor who accepts the responsibility for giving obstetric care to a prospective mother is the proper person to inform her as to how to prepare for safe childbearing. Apparently the Children's Bureau feels that mothers henceforth obtain this advice from regular monthly maternity clinics. Among the greatest menaces to the American democracy is the technic whereby the bureaucracies in Washington spend a considerable portion of their time and their funds in urging on the American people expansion of the funds and personnel allotted to those bureaucracies.

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EDITORIAL

DOCTORS AND HOSPITALS

An item in one of our rural newspapers recently pointed out editorially that "the only way in which the community can acquire and hold a doctor is through the building of a hospital;" . . . "because no modern doctor can practice his profession without complete hospital advantages." The community in question has a population of a little over 500.

The significance of the editorial is obvious. To begin with, this town, as so many others of the same rural type, had several physicians in recent years, but has had no doctor since 1942. The distance to a large city with two hospitals is less than 25 miles. One may conclude, we believe, that the community represents one of those well known conditions where a local doctor is generally known as a good fellow "to use" in time of emergency and to ignore his training and his necessity for livelihood when moderate or serious illness requires medical attention.

The second phase of significance is the belief among many people that medicine nowadays cannot be practiced, or at least practiced efficiently, without complete hospital facilities. There is no point in arguing that availability of a hospital to a doctor makes medical care somewhat easier than if those facilities are not close at hand. However, we know that a competent physician resorts to hospitalization and the use of hospital technique only when routine skills are to be supplemented by special laboratory and clinical procedures. From this point of view it would be well for organized medicine to initiate a campaign of education to convince both the public and the young physician entering practice that a good doctor can perform his functions properly in any community whether or not such community has a hospital. Apparently many people still measure distances in terms of miles rather than in terms of time consumed in reaching such distances from a given point. There are comparatively few localities, particularly in Nebraska, that are more than 50 miles removed from a well equipped hospital. Few of us drive our automobiles less than 50 miles an hour over any decent highway.

The timeliness of the item is striking because only recently the American Medical Association, and many state and local medical societies, endorsed the Hill-Burton Bill now pending in Congress. So far as we know there has been no active resistance to the proposal from any appreciable source. There is, therefore, every indication that the Bill will pass. Under its provisions a community may request the Federal Government to build a modern hospital. The request will be granted if such a community can establish the need for an institution. We presume that areas applying for hospitals will be required to meet certain qualifications, among which will be the ability to maintain the institution at an adequate professional level. This implies not only financial support, but what is equally important, competent personnel: doctors and nurses. Our Government has had some experience in hospital building, and if this experience is utilized we predict that the administrators in Washington will proceed cautiously in approving individual projects. There is more than one hospital constructed by the Federal Government which for years has served as little more than a misplaced architectural ornament in areas where there are few patients and no doctors.

NEBRASKA MEDICAL SERVICE

The change in name from Nebraska Surgical Plan to the Nebraska Medical Service recently adopted by the Board of Trustees of the Plan is a step in the right direction. While it is true that most people fear expenditures for surgical conditions more keenly than those of a medical nature, so far as the family budget is concerned, the effects are about the same. Some of the members of this Association, too, will welcome the change both in name and in function of the Plan. There was a good deal of criticism among our members regarding the provision for surgical care without the provision of corresponding benefits for medical conditions.

We welcome Nebraska Medical Service as an institution which will undoubtedly grow in popularity and widen its scope functionally. Its success thus far is an indication of its acceptance by the people of Nebraska. It is to be hoped that physicians throughout the State will become thoroughly familiar with the various phases of the Plan and that they will do everything within their power to make NEBRASKA MEDICAL SERVICE a success. As we see it, the only hope the medical profession has of avoiding a system of federalized regimentation is through the success of prepayment plans such as presented by Nebraska Medical Service.

DR. POYNTER RETIRES AS DEAN

The retirement of Dr. C. W. M. Poynter as active Dean of the Medical College of the University of Nebraska will create a feeling of nostalgia among many readers of this Journal. The number of practicing physicians who have come under his influence, whether as students in anatomy or individuals with student-day problems, is difficult to estimate. Of one fact we are certain—the influence, whether as instructor, or as Dean, or as personal advisor to many of us, was of a quality which undoubtedly brings to Dr. Poynter justifiable pride. Dr. Poynter loved to talk to students because he understood their problems. Students in their turn always felt free to bring their dilemmas before their Dean because somehow they felt they could talk and be understood. Dr. Lueth, his successor, will have no easy task in maintaining the wholesome rapport between his office and individual students on the scale created and maintained by the retiring dean.

Medicine in Nebraska owes a debt to Dr. Poynter which it fully acknowledges.

WELCOME HOME, DOCTOR

(From Collier's)

Doctors who served in the war are coming home in considerable numbers now, and in many communities you can hear sighs of relief plus the frequent remark: "Well, thank heaven, I can get sick now." Welcome-home editorials are appearing in local newspapers as favorite physicians return; testimonial dinners are being thrown profusely; the medical veterans are being invited to address Rotary, Kiwanis, etc., luncheons; and all this and that.

It's all very nice, and no doubt the doctors are pleased. We think, however, that we have an idea for a welcome-home program which any community can stage, and which should be of substantial benefit to the doctors so welcomed.

In honor of each physician who comes back from the wars, how about a Pay The Guy What You Owed Him When He Left If You Owed Him Anything Movement?

Most doctors are poor bill collectors. Many people let the doctor's bills go till the last. Many others just nonchalantly forget about the doctor's bills—and squawk fiercely if he squawks at all. It all adds up to the fact that on practically every doctor's books are large amounts in unpaid bills. He could very conveniently use that money after several years in service on modest service pay.

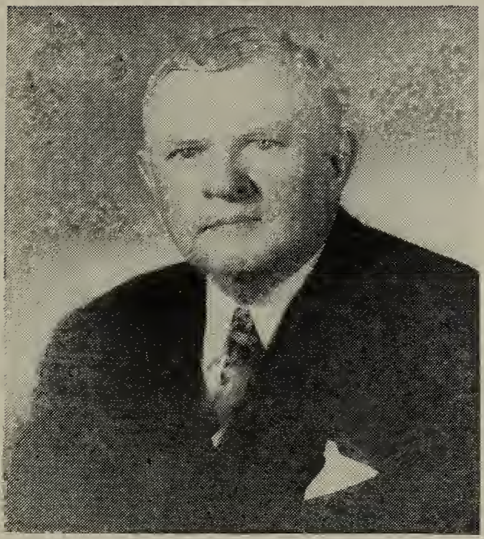
No bands, luncheons, reception committees, etc., are needed for this Pay The Guy, etc., movement. All that is required is a mass migration to the mailboxes by doctors' debtors with envelopes containing checks or money orders in their hands. The ceremony is guaranteed to make the debtor as well as the doctor feel better.

IRON DEFICIENCY ANEMIA MISTAKEN FOR VITAMIN B COMPLEX DEFICIENCY

Iron deficiency anemia is frequently confused with vitamin B complex deficiencies, according to William J. Darby, M.D., of Nashville, Tenn., writing in the March 30 issue of The Journal of the American Medical Association.

Dr. Darby, who is from the Department of Medicine, Vanderbilt University School of Medicine, presents the case reports of six patients who showed no abatement of symptoms after treatment with B vitamins. These same patients were then treated with iron and almost immediate improvement was noted.

Iron is a necessary part of hemoglobin, the red coloring matter of the blood. The symptoms of iron deficiency are manifested by a mild anemia, inflammation of the tongue and sometimes an inability to swallow. Iron deficiency anemias are more common among women than men.



Charles McMartin, M. D.

When this number of the Journal is received I will have reached the end of my term of office as president of your Association.

The past year has been a very busy one in organized medicine as we have sought for the best means of fighting "Socialized" or "Political" medicine.

Many men of our Association have given liberally of their time to bring about a better understanding of the economic and social problems that confront us on all sides.

There has been during the past year, exceptional activity on the part of the Council on Medical Service and Public Relations of the American Medical Association. The program that this Council has set up can only be successfully carried out through the support of all of us.

I am proud of the part that the Nebraska State Medical Association has had in this work and I am sure that this Association will continue to be among the leaders of organized medicine.

With deep appreciation of the loyal support given me during my term of office, I remain.

Sincerely yours,

CHARLES McMARTIN

Functional Recovery of War Wounds of the Extremities*

LT. COL. JOSEPH E. MILGRAM, M.C.
Headquarters Schick General Hospital
Clinton, Iowa

The subject is rather large, covering as it does practically all types of traumatic lesions of the extremities. If we had to list the factors on which we place major reliance in outlining a program for recovering function of a severely damaged extremity, we would list: (1) cleaning up the infection; (2) increasing local blood supply and restoring vasomotor tone; (3) urging use of extremity, constantly to tasks just beyond its apparent capability; (4) time for adequate return of brain-extremity connection; (5) insistent optimism about ultimate result—insistent enough to convince the patient; (6) reconstructive surgery, often radical, the details adapted to individual case and individual problem which usually is exactly like no other problem seen.

War is a strange occupation and its hazards include not only chunks of steel flung at high velocity but dark ruts on moonless nights, twenty-foot drops over unseen cliffs, falls into camouflaged fox holes, mechanical accidents of almost incredibly ingenius variety, and organismal attacks of global character.

While generally, standard surgical procedures are desirable and often possible, stress should be laid upon the necessity of approaching each case with a flexible mind and resistance to preconceived notions about what ought to be done in detail to the particular case. It is not possible to keep to a premeditated plan for operative attack in most of these cases without alterations before the program is over. Structures apparently hopelessly lost so frequently recover during the course of treatment that the subsequent program must be accordingly altered.

The keynote is flexibility in planning and inflexibility in completion. The danger is that the patient may be licked psychologically at the very outset and will be satisfied with less than the maximum that can be accomplished, and the surgeon may consequently accept the result as good enough even though further surgery offers promise of making it better. There are few fields of surgery in which bulldog tenacity of purpose is better repaid.

The military surgeon operates on a selected healthy cross section in the best decades of life. Backed by biochemical and biological aids of inestimable value, with blood, penicillin and sulfa, he can confidentally undertake a program of surgical reconstruction on patients which otherwise would be fraught with danger of failure and threat to life.

A not uncommon cause for failure is the translation of a snap judgment based upon an initial examination into a surgical procedure. One cannot simply see a war wound of the forearm and indicate the details of a surgical procedure at an early date. One must see him repeatedly and follow him through changing indications as return proceeds or ceases.

In thirty minutes we may expect to do little more than list some of the very numerous operative attacks which are utilized today in restoring return of damaged extremities. Yet a bird's eye view is possible by referring briefly to key situations.

Let us start with the upper extremity and list some of the newer reconstructive procedures which we have found of value. Let us start at the shoulder, work our way down to the hand, follow this course from the hip to the foot.

At the shoulder, the patient with high explosive penetration of the glenoid may come to spontaneous arthrodesis, providing fixation is efficient, insistent and prolonged. However, the ultimate result will depend upon the choice of position and fixation. We have discarded the military salute position for one of increased abduction, increased forward flexion and particularly slight internal rotation. Subsequent to attempted arthrodesis, it is our personal practice to resect the outer end of the clavicle in order to create a new mobile joint between the fused scapulohumeral unit. This increases the range of adduction and internal rotation and permits the arm, although fixed in abduction, to drop back to the side. If an irregularity has been produced on the head of the humerus by gunshot, it will impinge on the acromion so that the head is unable to slide smoothly for there is but paper thin clearance ordinarily beneath the acromion process. Satisfactory treatment is removal of the edge of the acromion. We recognize sequestration of the head early, patiently waiting for initiation of bony bridges to provide union before we surgically remove the often dead head. In the absence of infection, we disregard the mere presence of metallic objects in the tissue. Unless the patient can palpate them and asks for their removal, we leave most metallic fragments untouched. Comminuted fractures of the shaft of the humerus are treated on the assumption that no matter how badly damaged and how severely comminuted, the overwhelming majority will unite spontaneously if given adequate time and fixation. In the case of the humerus as elsewhere in the case of the long bones, one would be tempted to say that a high percentage of bone grafts indicates a low percentage of patience on the part of the surgical staff. When, however, nonunion does develop, it should be recognized and treated radically by application of bone grafts of adequate length and sturdiness. When association nerve damage is such as to require extensive resection of the nerve trunk as when 4 inches of the musculospiral nerve must be resected to permit end to end suture, step osteotomy learned in the last war is a procedure of definite value in that it permits approximation of nerve ends. The slack in biceps and triceps so produced seem to be rapidly taken up without appreciable loss of power.

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*Read before the Omaha Mid-West Clinical Society, October, 1945.

The damaged elbow despite its variety is almost never beyond hopes of salvage. After all, one can excise an elbow joint completely and be left with an arm which is practically painless and capable of strong flexion even though there is no active extension. This, while not desirable, serves to indicate that practically no elbow is quite hopeless. In general, a stable elbow without pain with a limited range of motion within the ranges ordinarily used is far preferable to a completely free elbow without stability or power. If we have to accept a limitation of function, we choose to accept some limitation of motion rather than some limitation of stability or power. To attain this, one resorts to a rather wide variety of procedures. If the case is seen early, we will occasionally attempt to realign the articular surface and try to salvage motion. If there is a loss of supracondylar substance, we may replace continuity by graft between the shaft and condyles with the view to subsequent creation of a new joint.

Our major attention however remains focused upon the retention of adequate muscle power for the elbow joint, particularly the triceps which is in a way the key to stability in the elbow joint. The biceps practically always escapes and even if it does not escape, the forearm flexors can easily be moved upwards by the Steindler flexor plasty to restore powerful flexion. The replacement of the triceps however, deserves emphasis and frequently we require as well the reconstruction of a new gliding mechanism over the back of the lower end of the humerus so that the intact fibers of the triceps may pull freely on the olecranon or ulnar fragment and stabilize the otherwise unstable shattered joint.

One learns not to be impressed by the magnitude of damage revealed on the x-ray film and one learns that here particularly, strenuous use will initiate the reappearance of motion which seemed at first glance impossible. Once motion has returned and then apparently runs against an insuperable obstruction, the surgeon again attempts to ascertain the nature of the obstruction and remove it. It is frequently a scarred triceps.

Occasionally, it becomes necessary to accept a painless pseudoarthrosis above the elbow as the site of a new elbow joint. Particularly is this true when the upper fragment is nothing but a prong. Here again the repair of the triceps mechanism returns surprising stability and power to the elbow whose x-ray appearance may be disturbing. In certain cases, we perform what for lack of a better term may be called an axle operation in which we have moved the prong at the pseudoarthrosis down into a more stable site and transfix prong and fragments with a short metallic pin. The surrounding tissues are then properly secured and early motion commenced postoperatively. A range of motion centering around the axle is created and new capsular scar forms to restrict the range of motion of the previously unstable joint. In six or eight weeks, the axle is removed under local anaesthetic but the formed new scar capsule usually retains most of the stability gained. The new joint exchanges some mobility for stability.

If one cannot do more here than to touch occasional high lights in the problems of the elbow, in the case of the forearm, this is no different. Radial adduction deformity is not corrected in the presence of limitation of elbow flexion until the final range of elbow motion is ascertained. The reason is obvious: for if radial adduction is corrected, the patient may not be able to bring his hand to his mouth for example, and correction may put the hand into a less useful phase of motion.

Forearm problems once infection has been cleared up and nerve damage has been handled, as well as possible, fall into two groups: restoration of bony continuity and resoration of tendon function. As a rule, we resort to onlay grafts in the case of nonunited forearm bones, again emphasizing length and fixation and wherever possible, pack the gap between the ends of bones after adequate scar excision with cancellous bone. It is seldom necessary to graft a nonunion of the distal end of the ulna, if painless, and a graft at this level frequently entails loss of pro, and supination.

The restoration of the extensor tendons involves usually tendon transfer or free tendon grafts. We employ a method which entails the preliminary creation of gliding channels in the forearm by implantation of steel strips or tantalum plates subcutaneously three weeks before transplant. Channels include suture sites and grafts subsequently.

While we have operated 57 patients in this group by this method, only 11 of them are finger flexors and our experience with restoration of fingerflexors is incomplete. The standard methods, I am sorry to say, are not uniformly satisfactory and restoration of finger flexors is still a field for much work. Preliminary to restoration of finger tendon, usually in separate stages, we clear up the infection, replace the skin, perform capsulotomy of the metacarpal phalangeal joint or freeing of the scarred extensor tendon from the dorsum of the hand—all preliminary to tendon graft. Not until a passive mobile joint can be obtained can we hope for restoration of motor power to attain an active movable joint. Incidentally, our best flexors are those in which we have completely disregarded original anatomic injury of the flexor tendon and have recreated new sheaths modifying the original celloidon tube technique of Mayer and Ransohoff, and running the channels subcutaneously instead of through the original channel which is advised by the above authors who excise the old mechanism. The graft is passed through these extravincular channels, leaving the scarred anatomic tendon "to wither on the limb." Surgery in the finger itself is thus avoided at time of insertion of the tendon graft.

The very broad and important subject of hand reconstruction should not be dismissed even in this cursory fashion without emphasis being laid upon the necessity of restoring at least a useful degree of sensation when the digital nerve is injured. Neurolysis and suture of the digital nerves is emphasized by Bunnell and is a practical procedure. Incidentally, if nerve suture is left until all other work in the hand has been done, by the end of the prolonged operation, the divided nerve ends will have become edematous and be larger. This enlargement facilitates the insertion of four fine silk sutures.

Metacarpal nonunions are rather frequent as a consequence of gunshot wound injury. Intramedullary grafts are usually done. We have had but one nonunion of a group of approximately 30 such bone grafts.

In the phalanges where nonunion rarely occurs, we have utilized successfully a combination of cortical intramedullary and cancellous packing grafts.

Time is running short and most of our comments about the lower extremity must be brief.

In the hip, we seek arthrodesis in satisfactory position in the presence of severe damage. We have not resorted to arthroplasties in these cases. Occasionally, subtrochanteric osteotomy is indicated.

Non-union of the shaft of the femur is surprisingly infrequent but the sclerotic ends which usually are found in gunshot fracture with loss of substance make it necessary to be meticulous about details of bone graft technique. Massive graft, plenty of additional bone, accurate carpentry, retention of hematoma locally and prolonged fixation seem to be necessary. We use iliac vascular grafts to reinforce sturdy cortical grafts.

Quadriceps contractures are not infrequently seen with shaft injuries. Usually, the capsule of the joint undergoes shrinkage and scarring; capsulatomy of the medial and lateral capsule together with division of extremely dense band of scar tissue which seems to replace the subcrureus muscle at the upper pole of the patella are frequently necessitated.

In general, we perform the Bennett type of operation but find that it is usually necessary to add a fascial plastic to reconstruct the quadriceps bursa and prevent subsequent readherence during post operative fixation in flexion.

There is no time to discuss end results of knee injury save to remark that in our experience, reconstruction of the cruciate ligaments and of the lateral ligaments by method of Hey-Groves has given us very considerable satisfaction. It should be emphasized that at time of operation, intra-articular work is kept to absolute minimum in the sense that one should not remove torn menisci found at the same time. By limiting our work in this fashion, we have been able to retain knee motion despite the six weeks immobilization necessary after ligamentous replacement. The fascia used is wider than that commonly recommended in order to make massive ligaments, and the fascia had best be removed from the healthy side rather than endanger the stable action of the tensor fascia on the already unstable knee joint.

The leg presents essentially the same problem as does the forearm, and both bone graft and tendon graft through gliding channels are necessary. The commonest problem is the drop foot. Tendon graft has been successfull in our hands, using posterior tendons through channels when anterior motors are paralyzed, and balancing the foot to avoid necessity of subastragalar arthrodesis.

The hopelessly damaged knee joint is best arthrodesed, and we employ a combination of plane and rotation arthrodesis with intra-articular transversing pins incorporated in plaster or in a mechanical appliance.

Fusion of the ankle is not infrequently necessary and it is our practice to fuse only those joints that are damaged. When the astragalus by reason of aseptic necrosis and infection has been lost, when the skin is satisfactory, tibio-calcaneo fusion is done through a lateral approach. The fibula is osteotomized 5 inches above the ankle, turned laterally and a graft is moved downward from the lateral surface of the tibia through a well in the os calcis, and held in place with metallic screws. The fibula is then imbedded into the os calcis after 3/8 of an inch of its central end has been removed in order to enable it to be fitted back into the central fragment of the fibula, as the foot is telescoped centrally.

Osteomyelitis of the os calcis is often unfortunately a lesion following injury from high explosive. Most lesions subside after sequestrectomy and biotherapy. Those which have persisted with large central defects are treated by osteotomy of one of the intact walls which border the defect. Compression enables the cavity to be collapsed. A screw transfixing both walls and supporting tissue is left in temporarily. In selected cases, the procedure works well and rapidly.

Emphasis is placed upon the fitting of a proper weight bearing appliance and institution of early weight bearing wherever possible in lower extremity injuries if functional recovery is to be experienced at the earliest possible date. Weight bearing is stressed also as a preliminary to operations not only on the bones of the lower extremity, but of the upper extremity, for function is the best stimulus to normal recalcification and ossification throughout the skeletal system.

In closing, it seems a truism that since civilian and military surgeons have the same subject and object for their activities, their reconstructive techniques are hardly dissimilar.

* * *

TABLETS FERROUS SULFATE WITH B VITAMINS

The House of Squibb has announced the release of Tablets Ferrous Sulfate with B Vitamins. These tablets are intended for use where it is desired to administer the three critical vitamin B complex factors in addition to iron. Each tablet contains: Ferrous Sulfate Exsiccated U.S.P. XII, equivalent to 5 grains Ferrous Sulfate U.S.P. XII; 1 mg. thiamine hydrochloride; 1 mg. riboflavin; 6 mg. niacinamide. Thus, three tablets supply at least the full daily allowances of thiamine hydrochloride, riboflavin and niacinamide, as recommended for the average adult by the Food and Nutrition Board of the National Research Council.

Tablets Ferrous Sulfate with B Vitamins Squibb are suggested for use especially in the following three types of cases: (1) For prophylaxis and treatment of secondary nutritional anemias, the anemias of pregnancy, chlorosis and other conditions deriving from iron deficiency; (2) for prophylaxis during the last months of pregnancy; (3) in pernicious anemia as a supplement to liver where an iron deficiency also exists.

The recommended dosage for adults is 3 tablets daily to be increased to 4 or 5 during pregnancy. For children 1 or 2 tablets daily. They should preferably be taken immediately after meals in divided doses. Tablets Ferrous Sulfate with B Vitamins Squibb are supplied in bottles of 100 and 1,000.

The Medical History of a Pacific Veteran

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A physician though well in the habit of taking accurate histories, may encounter unfamiliar matter, when his patient happens to be a veteran of the Pacific Theater of War.

Conditions in such a vast space of our globe vary not only geographically and climatically, but also with the serviceman's activities, the nature of his assignments and the duration of his duty in the Pacific Ocean Area.

With the knowledge of a few pertinent facts however the examining physician ought to be able to adequately appraise the data of a "Pacific history." The following routine of questions gradually emerged from the author's experiences with combat units, crossing the Pacific to the Asiatic mainland, north and south of the equator.

Leaving out the history of combat trauma and less common diseases the history usually boils down to a rather efficient minimum of eleven questions:

I. In Which Areas of the Pacific Have You Been?

Many servicemen have covered a variety of areas with greatly different epidemiology. It will be of help to remember the endemic areas for the most widely distributed severe tropical diseases:

Malaria: Free of malaria are the Hawaiian Islands, the Gilbert, Marshall, and Carolines groups, the Marianas, New Caledonia and New Zealand. Malaria is endemic in the British East Indies, Dutch East Indies, Burma, China, the Solomon islands, New Guinea and adjacent island groups, the Philippines, New Hebrides, Northern Australia, Formosa (Taiwan), the Ruykyus, Southern Japan and Korea. Aestivo-Autumnal Malaria (P. Falciparum) is of particular importance in Burma; the British East Indies, Luzon and the Solomon Islands.

Filariasis: There is none in the Hawaiian islands, the Gilbert, Marshall, and Carolines island groups, New Caledonia, New Zealand and Australia. Few cases are encountered in the Marianas. Filariasis is endemic in the Samoa and Fiji island groups, the New Hebrides, New Guinea, the Philippines, Northern Australia, the Dutch East Indies, British East Indies, Burma, China, Formosa (Taiwan), the Ryukyus, Southern Japan (Kyushu and Honshu) and Korea.

Schistosomiasis: Schistosoma Japonicum is endemic in China (Yangtse valley), Burma, Japan (Hiroshima area and Katayama), Formosa (Taiwan), part of the Philippines (Leyte, Samar and Mindanao), Celebes.

Yaws: Has been well controlled among our troops. This disease is endemic in most of the Pacific islands. Exceptions are again the Hawaiian islands, New Zealand and Australia.

Even this small and incomplete survey leaves no doubt that the Hawaiian islands and New Zealand are the healthiest zones. We certainly have to admire the old Hawaiians for their ability not only as sailors and navigators, but also for their judgment of scenic beauty and appraisal of healthy environment. The Maoris of New Zealand are the descendants of emigrants from the Hawwaiian Islands, who made the long voyage in their canoes. They did find another beautiful and healthy home indeed!

II. What Tropical Diseases Have You Had?

Malaria? Dengue fever? Filariasis? Japanese "B" encephalitis? Dysentery? Typhoid fever? Hookworm disease? Roundworm disease? Any other worms or parasites? Scrub typhus? Weil's disease? Any other tropical disease?

Not infrequently the examining M.D. will hear the statement that his patient suffered of "Jungle Rot." This term may include many conditions, such as cutaneous moniliasis, epidermophytosis, infected insect bites, or superficial abrasions with slow healing tendency. This tendency was due to hypoproteinemia, avitaminosis, dirt and filth, maceration of the skin due to continuous excessive perspiration and other factors. Other slow healing skin ulcerations proved to be cutaneous diphtheria, an epidemic of which was encountered during the battle of Saipan (along with pharyngeal diphtheria, Dengue fever, bacillary and amoebic dysentery). These lesions finally healed with heavily pigmented scars. Penicillin was the only effective drug in cutaneous diphtheria.

The average soldier seems to have much more confidence in penicillin however than his medical officer. Many servicemen have come to regard venereal diseases as no more bother than a "headcold." Penicillin will fix it up, so why worry! Since so little importance is being attributed to a venereal infection, it will very likely be forgotten at a later date.

III. To Which Unit or Units Were You Assigned and What Was Your Work?

Garrison troops were less exposed to most diseases than tactical units. Members of infantry, or Marine Divisions were most likely to pick up parasites of the soil, such as hookworms and Strongyloides stercoralis, because in action these men were dug into the ground for a great deal of the time. For these men it was impossible (and at the time immaterial) to keep hands and face from direct contact with the ground. One of the author's stool surveys strikingly demonstrated hookworm infestation by companies or even platoons. Some of them had an infestation rate of 30 per cent, while other units of the same battalion or regiment were almost free of the infestation. It always was possible to trace the infestation to a certain locality, where the company or platoon was dug in. Infestation by the oral route is possible but played only a minor role in this war.

Army, Marine and some Navy units were almost equally exposed to various fly-borne diseases, especially the dysenteries. The Air Corps and Navy fared better.

Engineer units and others, who had to wade streams or still water, were the ones particularly exposed to an infestation with Schistosomiasis.

IV. Were You Ever in an Area with a Fly Problem?

An extremely grave fly problem was encountered on Eniwetock and Saipan. These islands seemed to be host to a convention of all flies on this globe. Many other areas were heavily infested, particularly during combat, where unburied bodies offered ample breeding grounds.

In such areas even the most conscientious control measures were futile during combat and most everybody acquired one or more types of dysentery. After the combat phase an extensive spraying with D.D.T. cleared these lands completely and miraculously. Thus garrison troops once more were less likely to acquire one of the dystenteries or other fly-borne diseases.

V. Did You Ever Have Diarrhea? If So—

a. How many times?

b. Where and when?

c. Did you notice blood in your stool?

d. How long did the diarrhea last?

e. Did you have fever along with your diarrhea?

f. What was your treatment?

During combat many sufferers of acute dysentery received a few doses of paregoric and carried on. Very often they would lose their acute symptoms for a while and were admitted to a hospital at a later date with a "fever of undetermined origin." Not infrequently they finally ended with the diagnosis "Dengue fever." Thus undoubtedly many Pacific veterans still are carriers of some Shigella strain or Endamoeba histolytica.

In most cases of acute bacillary dysentery the patients volunteer the history of a dramatic onset with bloody and purulent diarrhea. severe cramps, high fever, nausea and vomiting.

Amoebic dysentery usually lacks the history of high fever. Cramps are not too severe. Blood in the feces is present but never pus. Alternating diarrhea and constipation complete a rather typical history of acute Amoebic dysentery.

Schistosomiasis (S. Japonicum) is another cause for severe and protracted bloody diarrhea.

Strongyloides stercoralis causes severe diarrhea, which is watery in character, never bloody.

Cheilomastix Mesnili, usually reported as of questionable pathogenicity, was repeatedly seen as apparently the sole organism associated with severe diarrhea.

Considering all these etiologies for diarrhea, it should not be forgotten that a short mild diarrhea might not have been a disease per se, but the associated symptom of one of various diseases, such as Dengue fever, Infectious Mononucleosis, Malaria and others.

VI. Did You Ever Have Jaundice?

The history of icterus in the Pacific may reveal agents and etiologies quite unusual in the ordinary practice. Yellow fever immunization was followed by severe febrile jaundice, when carried out with certain early lots of antigen which contained human serum. Such instances were particularly noted in 1942. On these occasions we encountered an epidemic picture, restricted to an outfit which had been immunized against Yellow Fever about one month previously. While taking the history, the author always has refrained from inquiring in one breath about jaundice and Yellow Fever immunization. Unguarded questions might initiate unjustified law suits against the government during the post-war period.

Dengue Fever is closely related to Yellow Fever. One of its frequent complications is hepatitis and in a small number of cases (1% or less) outright icterus.

Weil's disease should be considered as a possible cause of jaundice, particularly when the course of the illness was severe and associated with pain in the intercostal, gastrocnemii and soleus muscles and conjunctivitis, epistaxis and haemoptysis in addition to general symptoms. The presence of rats and the possible contamination of food with their excrements is an important item of information.

The well known infectious hepatitis was by no means infrequent in the Pacific theater and presented itself no different than it does in the continental U.S.A.

VII. Did You Suffer from Chronic Abdominal Pain, Discomfort, Nausea in the Morning Hours? If So, Did You Ever Have a Seizure of Violent and Persistent Vomiting During Battle Strain?

In tropical climate the carriers of intestinal parasites, particularly of Endamoeba Histolytica, complained of nausea and gagging during the morning hours and abdominal pain of rather indefinite nature, mostly in the right lower abdomen or epigastrium.

In a state of physical exhaustion or near-exhaustion during battle many of these carriers developed severe pain in the right lower abdomen and persistent vomiting. They usually were seen with a considerable alkalosis, due to vomiting, having a normal or near-normal white blood cell count, pain and tenderness over Mc. Burney's point, but never muscular rigidity. Their recovery under parasiticidal therapy always was dramatic. Mixed intestinal infestations were common and not infrequently did one encounter a patient with four to six different species of intestinal parasites. Steady epigastric pain, similar to that of a duodenal ulcer, is quite characteristic of ankylostomiasis. It may even be associated with gastric hyperacidity.

VIII. Did or Do You Suffer of Chronic Hives?

Urticaria is a frequent symptom in helminthic infestations, Schistosomiasis, Filariasis and others. Contrary to most texts on tropical medicine urticaria was seen not only as an early sign, but as late as six months after the initial infestation and had a pronounced tendency to recurrence. Urticaria in a patient who never had been subject to it before, is highly suggestive of parasitic infestation.

IX. Did or Do You Suffer of Chronic Headache, Which Never Is Relieved by Aspirin?

Persistent headache is by far the most common symptom of chronic malaria! The patient volunteers the statement that it is "a different kind of a headache," located occipitally. Besides a general feeling of weakness no other malarial symptom may be present, particularly no fever!

Other symptoms of chronic malaria are: Low backache, precordial pain on effort, neuropsychiatric changes such as irritability, difficulty in concentrating, depression, emotional instability and personality changes.

It must be emphasized that any of these chronic symptoms may be present and severely so, yet all malaria smears may be negative.

Typical febrile cases of malaria usually have been diagnosed and the patient is well informed of his disease.

X. Did You Acquire Hay Fever or Asthma in the Pacific? If So—

a. Where did you have it for the first time?

b. Where were you free of symptoms?

c. Did you notice any outside influences, such as climate, terrain, seasons or vegetation?

d. Were you ever on an atoll?

e. How was your trouble there, better or worse?

f. What seemed to bring on an attack?

It was not at all rare that a serviceman's first allergic manifestations occurred somewhere in the Pacific. In many of these cases we deal with the sensitization to an allergen, which is either not present in the patient's home state or at least not represented too predominantly. Very little is known about the allergens of the Pacific islands. Climate and vegetation lead one to believe that a multitude of pollen prevail in the air throughout the year. Some investigative work has been done in the Hawaiian islands, where sugar cane and algeroba are considered to be among the main allergens. No investigative work on allergenic fungi hs come to the author's knowledge. Yet there is a great number of cases which cannot be traced to pollen or animal emanation allergy. Even on atolls which are bare of any vegetation, like Christmas island or Canton island, these symptoms have been present.

A sensitivity to the overwhelmingly omnipresent fungi has to be considered. Once sensitized to aspergillus, penicillum, hormodendrum, alternaria and other molds, the returned soldier's allergy might manifest itself on contact with even small amounts of the spores of these fungi, as they are found in the continental U.S.A. Other cases of severe bronchial asthma have been found to be due to an allergy to intestinal parasites, particularly to hookworms. Atopic dermatitis sometimes is the allergic manifestation to an intestinal parasite.

XI. Have You Ever Had an Extremely Painful and Tender Scrotum? Ever a Swelling in Your Groin or Your Arm Pits?

Funiculitis, lymphangitis, lymphadenits and regional oedema are the most characteristic transient symptoms of early Filariasis. In endemic areas the medical service was quite alert to these symptoms, so that very few cases are likely to have been missed.

The preceding skeleton of questions pertains only to the most common diseases which may be of importance in civilian life later on. Infectious diseases, such as Japanese "B" Encephalitis, Scrub Typhus and others have not been common, and wherever they were encountered a great deal of attention was given to them. Thus the patient should be in a position to give definite information concerning diagnosis and source of his illness. An inclusion of these diseases into this routine questionnaire therefore did not seem advisable or practical.

It is hoped that this routine, added to the regular medical history, will provide an adequate informative basis for the subsequent clinical investigation.

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IN THIS ISSUE

MANY readers heard Colonel Milgram's discussion on "Functional Recovery of War Wounds of the Extremities" at the last session of the Omaha Mid-West Clinical Society. By popular request we publish this excellent paper on page 176

WE present two papers bearing on the problem of the medical care of veterans by the family physician. First is "The Medical History of a Pacific Veteran" submitted by Dr. H. H. Zinneman, who was recently retired as a Major from the U. S. Army Medical Corps. Turn to page........ 180

AND SECOND, by request Dr. Raymond J. Wyrens has initiated a series of several articles on tropical diseases to be published in this Journal. The first paper is on malaria and appears on page........ 184

THIOURACIL in the treatment of thyroid disease is gaining in popularity. We submit a paper by Dr. Arthur M. Greene, a member of the Medical Department of the University of Nebraska College of Medicine, more recently retired as a major from the U. S. Army Medical Corps. You will find this discussion on page........ 186

ARTHRITIS in its various forms was the subject of a symposium at the 1945 session of the Omaha Mid-West Clinical Society. The symposium was well attended, and many physicians were enthusiastic about the presentations. Accordingly we submit some of these papers in this issue: The symposium starts on page........ 189

Tropical Disease in Discharged Military Personnel

I. MALARIA

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With the return of overseas military personnel to civilian life many new diagnostic problems confront the local practitioner. Many discharged soldiers who have contracted certain tropical diseases can be expected to have clinical recurrences from time to time after discharge from the army. Although the Veterans Administration is committed to the care of such cases, the problem of diagnosis and treatment of the vast majority of these will fall upon the civilian physician. It is well, therefore, to review the clinical aspects of the more common of these diseases and outline their modern methods of treatment.

Of all the tropical diseases encountered in military personnel overseas, by far the most common was malaria. Likewise, recurrent malaria will be the most frequently seen among returned veterans. Malaria is caused by protozoa of the genus Plasmodium. Of the four species pathologic for man the most commonly encountered are P. vivax and P. falciparum. Of the two, P. vivax will be most frequently seen because of its greater tendency to recurrence and because modern prophylactic therapy more effectively prevents falciparum infection.

The classical picture of malaria with its alternation of "good" and "bad" days is often not seen. Even in P. vivax infections (Benign tertian malaria) the onset is frequently characterized by daily or quotidian fever. However, relapses usually follow the characteristic tertian temperature curve. In P. falciparum infection (Malignant tertian or Aestivo-autumnal malaria) the temperature is more often remittant or continuous than intermittant.

In the initial clinical attack, and to a less degree in the recurrent attack, prodromal symptoms may be present. These consist of malaise, muscular pains, headache, anorexia and slight fever which may exist for several days before the onset of the acute phenomena. In many instances, however, the attack may come on abruptly.

The typical paroxysm of P. vivax malaria is abrupt, with the initial chill varying from a severe rigor to a slight subjective sensation of chilliness. Following the chill the temperature rises rapidly to a level of 103 to 106 degrees. Accompanying symptoms usually include headache, nausea and vomiting, epigastric pain, and sometimes diarrhoea or polyuria. The face becomes flushed and the pulse is full. Occasionally there is mild delirium. After a few hours the sweating stage develops, during which the temperature rapidly returns to normal. With the return of normal temperature the patient usually feels well except for exhaustion. The entire paroxysm lasts eight to twelve hours.

P. falciparum malaria is usually insidious in onset, with increasing headache and gastro-intestinal symptoms. Frank chills are less commonly seen, as is also the periodicity of the fever. When remissions do occur, there is not the return of the sense of well-being that is seen in P. vivax infections. Prostration is more marked and the tendency to delirium is greater. Nausea and vomiting are prominent.

Specific diagnosis is made by microscopic examination of the stained blood smear and demonstration of the parasites within the red blood cell. The thick smear method is preferred for demonstration of the presence of the parasite, although the thin smear may be necessary for species identification. Thick smears are made by collecting three or four small drops of blood in a small area on a clean grease-free slide. The drops are stirred together with the corner of another clean glass slide so that the thickness is such that newsprint can barely be read through it. The total area of the smear should be about the size of a dime. While drying, the slides should be kept in a horizontal position, protected from dust. This may require two or three hours for thick smears. Thin smears are prepared in the same manner as for a differential blood count. For staining technique and colored charts for identification, the reader is referred to any standard textbook of laboratory diagnosis. If so desired, slides may be packed and mailed to any private clinical laboratory or to the State Department of Health for staining and examination. The optimum time for obtaining the smear is during the twelve hours preceding a paroxysm.

At times the parasite may be extremely difficult to demonstrate. Specific therapy is justified in the absence of a positive smear upon a clinical diagnosis alone. A history of return from an endemic malarious area with typical periodicity of fever and splenomegaly are indications for therapy. This is especially true if the patient has had a previous diagnosis of malaria.

Atabrine is the drug of choice for treatment. The dosage schedules recommended in most manuals at the present time are those used during the earlier years of the war and have been found to be inadequate. More up to date methods make use of heavier dosages. Atabrine should be administered by mouth according to the following schedule:

1st day__________0.4 grams (6 grains) t.i.d.
2nd day_______0.3 grams (4½ grains) t.i.d.
3rd day_________0.2 grams (3 grains) t.i.d.
4th to 7th days_0.1 grams (1½ grains) t.i.d.

Quinine is recommended only in those rare instances of atabrine intolerance or when atabrine is unavailable. The recommended schedule for quinine is as follows:

1st and 2nd days__1.0 gram (15 grains) t.i.d.
3rd to 7th days__0.6 gram (10 grains) t.i.d.

Occasionally, because of vomiting or because of surgical procedures, oral administration may be impractical. Atabrine dihydrochloride is available for parenteral use. This is given 0.2 grams (3 grains) in 5cc. distilled water injected intramuscularly into each buttock. This may be repeated once or twice at eight to ten hour intervals. Oral therapy should be resumed as soon as it is practical.

There has been a great deal of speculation and much misinformation has been circulated regarding the toxicity of atabrine. While there is apparently some tendency to produce occasional skin lesions after prolonged use of the drug, there is no evidence to show that actual toxicity may result from brief courses of atabrine used in treatment of clinical malaria. There is, however, the rare individual who may develop vomiting or diarrhoea with short courses of atabrine. This is not a true toxicity, but rather an individual intolerance to the drug. These side effects can frequently be controlled by giving food or sweetened fluids with the drug. If intolerance persists quinine therapy should be substituted.

Malaria must be looked for in any obscure febrile illness seen in a veteran returned from the tropics or from the Mediterranean. It must be remembered that incipient malaria may be precipitated by another febrile illness, by major surgery, or by injury. Very few diagnoses will be missed if the possibility of malaria is kept in mind.

* * *

SQUIBB MAKES THIOURACIL AVAILABLE

Thiouracil, a new compound derived from thiourea, which has been found useful in controlling the major manifestations of hyperthyroidism, has recently been made available for prescription use by Squibb. Thiouracil is indicated in the treatment of hyperthyroid patients having either a diffuse toxic goiter or a single or multiple nodular goiter. It is recommended both for preoperative use and for the treatment of patients in whom surgery is contraindicated. It is also possible that Thiouracil will be found of value in acute thyroiditis.

For patients in whom surgical treatment is contraindicated, the initial dose of Thiouracil is 0.4 gram daily by mouth taken as 4 divided doses to be administered every 4 hours during the waking hours. While some patients may require higher dosage, the maximum initial dose should be 0.8 gram daily. Maintenance dose is between 0.1 and 0.2 grams daily in divided doses. As preoperative treatment, 0.4 gram should be given daily in 4 divided doses during the waking hours and this dosage should be continued until hyperthyroid manifestations have subsided and the basal metabolic rate is normal. During the second and third weeks preceding operation, iodine is administered simultaneously with Thiouracil; then Thiouracil is discontinued and for the week preceding surgery, iodine alone is given.

Since granulocytopenia is a reaction with an estimated incidence of 2.5% among patients taking Thiouracil, the patient should be warned to discontinue the drug and see his physician immediately if sore throat, fever, coryza or malaise are noted. If the total white cell count is found to be below 4,000, vigorous treatment of the granulocytopenia should be instituted. Neither sulfonamides nor analgesics should be given.

While Thiouracil has been found to be an extremely important weapon for the medical treatment of hyperthyroidism, it is strongly recommended that the physician familiarize himself with its use and the complications attending Thiouracil therapy.

Thiouracil Squibb is supplied in 0.1 gram scored tablets in bottles of 100.

Hyperthyroidism—Accuracy of Diagnosis Mandatory in Treatment with Thiouracil

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With the discovery of every new specific therapeutic agent there is a tendency for physicians to be over-zealous in its use. A true curative or alleviative treatment brings great satisfaction not only to the patient but also to the physician who sees relatively few patients suffering from a disease amenable to such therapy. However, an accurate diagnosis of the disease to be treated by the specific agent is the first step toward successful treatment.

In the usage of thiouracil or related chemicals(1, 2, 3) it is essential for all physicians to be wary of their tendency to prescribe these agents for individuals who on casual survey appear to be suffering from an over-secretion of the thyroid gland. Thiouracil is administered orally, requires no painful or expensive parenteral injections, and by the uncautious may be administered in the hope of obtaining temporary or even permanent results without the necessity of an operation. A patient will placidly accept most oral therapy, but both he and his doctor carefully weigh the prospects of a surgical procedure. For this reason more careful diagnostic surveys are made of those individuals on whom an operation is contemplated.

The diagnosis of hyperthyroidism of marked degree is seldom a problem, but the mild hyperthyroid states and the long-standing cases in older people (usually associated with adenomata of the thyroid) are particularly difficult. It is also well known that the anxiety states frequently mimic hyperthyroidism in their symptomatology. Highly technical studies of iodine metabolism are of great aid in the study of thyroid disorders, but these require a specially equipped laboratory that is infrequently available to the clinician. The average physician, therefore, must depend upon his clinical findings and a basal metabolic determination to evaluate the patient's metabolic state. Some of the important and helpful findings and symptoms of hyperthyroid states will be discussed in this paper.

The following manifestations favor the diagnosis of hyperthyroidism:

1. "Activation."
   a. Emotional.
   b. Physical (motor).
2. Goiter.
3. Cardiac over-activity.
4. Peripheral vasomotor signs and skin changes.
5. Eye signs.
6. Elevated basal metabolic rate.
7. Changes in appetite and weight.
8. Sensitivity to warm environment, and increased tolerance to cold.
9. Miscellaneous:
   a. Blood cholesterol—low or normal levels.
   b. "Pep" and fatigue.
   c. Neck pressure symptoms.

"Activation" can be divided into emotional and physical. Emotional activation is usually one of the prime reasons for the patient consulting a physician. The patient notes that he has become more irritable; insignificant inconveniences or innocently spoken remarks will frequently cause the patient to "flare up," "snap back," or burst into a previously unaccustomed crying spell. Although he frequently feels exhilarated, he will suddenly become depressed and moody and his eyes will fill with tears.

Physical activation is noted as soon as the patient enters the doctor's office. He usually walks in with a fast, jerky step, sits down hurriedly, and perches himself on the edge of the chair. He doesn't sit back and relax but is constantly moving, looking about the room from object to object, crossing and uncrossing his legs, constantly fiddling with his hat, pocketbook, phone cord, or strumming his fingers on the desk top. He talks in a rapid, sometimes staccato manner, and is apparently so interested that his eyes may seem to stare or pop out. It is easy to understand why one who is so active is complaining of fatigue. A fine tremor of the hands, tongue, or closed eye-lids is frequently noted.

It should be pointed out that in older individuals suffering from toxic nodular goiters of long duration, there often are no signs of "activation," but instead, an apathetic state. In these patients the presence of weight loss, tachycardia, goiter, and congestive heart failure will usually lead to the correct diagnosis.

To make a diagnosis of hyperthyroidism without enlargement of the thyroid gland or a change in its consistency is treading on dangerous ground. Only after much experience in palpation of thyroids can the examiner become adept at noting small changes in the size and consistency of the gland. With the exception of relatively few substernal thyroids with normal sized glands in the neck, it is safe to assume "no goiter, no hyperthyroidism."

Untreated hyperthyroidism is practically always manifested by cardiac overactivity. This is noted in the pulse rate elevation, the bounding pulse, the high pulse pressure (and frequently presence of a capillary pulse), the forceful cardiac apical thrust, the diffuse apex beat, and the loud and snapping heart tones. Auricular fibrillation is seen frequently. To the observer, the circulatory manifestations are those of a heart working harder than it apparently should for the particular state of the body activity. A quiet heart does not fit into the picture of hyperthyroidism.

The skin of the individual suffering from hyperthyroidism is characteristically smooth and fine. The hands and feet are warm and moist. Cold and wet (clammy) hands and feet are strongly against the presence of hyperthyroidism. The finger-nails are friable and difficult to keep clean because of the irregular subungual free nail margins.

Characteristic eye signs described so well by Graves, Basedow and others are indeed most helpful in reaching the diagnosis of hyperthyroidism, but the familial tendency to "pop eyes" frequently leads the observer astray. True exophthalmos or "stare" that previously was not present is most suggestive of thyroid over-activity, especially if accompanied by lid lag and poor power of convergence of the eyes. However, absence of these eye signs does not rule out hyperthyroidism, especially in those suffering from nodular goiters where eye signs rarely if ever occur.

In evaluating a basal metabolic rate many factors must be considered. For the patient to be in a basal state he should be completely relaxed and rested, both mentally and physically. This demands a good night's rest before the determination, a test done early in the morning with no prior physical exertion, an absolute twelve-hour fasting state, no previous smoking, and a technician who understands the necessity of the patient's being in a state of mental quietude with absence of apprehension. A trial "dry run" performed a day before the actual test, will acquaint the patient with the procedure and reduce the apprehension about the machine. The technician should be trained to minimize the discomfort of the nose and mouth pieces. An experienced technician working on a patient who has been hospitalized for at least one night is desired—but not always feasible. Repeated tests frequently reveal a progressive drop in the metabolic rate and should be done if there is any question concerning the accuracy of the reading.

It should also be remembered that fever, or any infectious or neoplastic disease (especially leukemia) will frequently cause elevated basal metabolic rates.

Loss of weight despite a normal or increased appetite is very suggestive of hyperthyroidism. Weight loss, however, is not an essential finding because some patients increase their caloric intake to compensate for their increased metabolism. The patient with an anxiety state mimicking hyperthyroidism will frequently complain of poor appetite with maintenance or even increase in body weight.

Increased caloric production in one with hyperthyroidism increases his tolerance to cold and makes him heat sensitive. A warm summer day, or a room comfortable to the average person is uncomfortably hot to a patient with hypermetabolism. He uses less blankets, frequently doesn't cover his feet at night, and dresses with unseasonably light weight clothing. He "fags out" on a warm day and feels better on a chilly day. In contradistinction to this, the patient suffering from an anxiety state is usually "cold blooded."

MISCELLANEOUS AIDS TO DIAGNOSIS

Although the blood cholesterol is usually elevated in hypothyroidism, a lowering of the level is not a necessary finding in hyperthyroidism. Most patients have a normal cholesterolemia, or an insignificant lowering, so that this chemical test is of dubious diagnostic help.

Characteristic of the hyperthyroid patient is his excess pep and energy, but frequently he is just "spinning his wheels," accomplishing little and tiring very quickly. He has much "will to do" but not the physical strength to accomplish his desired program. One suffering from anxiety is always tired, and even a good night's sleep doesn't remedy this.

Comment on "choking sensation," "lump in throat," or "pressure in the low neck" is in order. Unless these symptoms are associated with obvious clinical or roentgenologic evidence of thyroid enlargement, they are not due to thyroid disease. Globus hystericus is a very common symptom of psychoneurosis, and the layman cannot understand why this sensation of a mass is not objectively noted by the examiner. However, insight may be conferred to the patient if it is pointed out to him that his symptom is exacerbated when he is nervous or upset, and that the sensation disappears when he is mentally at ease.

Aside from the fact that thiouracil is helpful only in definite hyperthyroid states, it must be remembered that as yet wide experience and prolonged follow-up studies have not been obtained with this drug. Careful investigators(4) who are working with it are not ready to state in which cases it is the only treatment indicated, or in which patients it is to be used as a temporary expedient until surgical treatment can be safely performed. Also, it is not known whether it will be a permanent substitute for thyroidectomy in any cases.

The administration of thiouracil is not without possible danger. Idiosyncrasies to this drug manifested by leukopenia, agranulocytosis, skin reactions, chills and febrile responses, swelling of salivary glands and lymph nodes, and jaundice are appearing in the literature in ever greater frequency(4, 5). Its usage must be accompanied by frequent clinical observations of the patient and repeated determinations of the leucocyte and differential blood counts. Immediate cessation of the administration of the drug when leukopenia or fever appears may prevent a true agranulocytosis. The patient must be warned to report to the doctor immediately any sore throat, respiratory infection, skin eruption or fever.

SUMMARY

The therapeutic use of thiouracil and allied compounds must be limited to definitely proven cases of hyperthyroidism if reliable statistics of the efficacy and dangers of these drugs are to be obtained. Certain diagnostic features of hyperthyroidism and the differentiation from anxiety states have been reviewed.

REFERENCES

1. Astwood, E. B.: Treatment of Hyperthyroidism with Thiourea and Thiouracil. J.A.M.A., 122: 78-81 (May 8) 1943.

2. Astwood, E. B.; Bessel, Adele, and Hughes, A. M.: The Antithyroid Activity of Thiobarbital. Endocrinal, 36: 72-74 (Jan.) 1945.

3. Bartels, E. C.: Use of Thiobarbital in the Treatment of Hyperthyroidism. J.A.M.A., 129: 932-935 (Dec. 1) 1945.

4. Moore, Francis D.: Toxic Manifestations of Thiouracil Therapy. J.A.M.A., 130: 315-319 (Feb. 9) 1946.

5. Bartels, E. C., and Blizard, E. C.: Toxic Reactions to Thiouracil. Lahey Clin. Bull., 4: 150-158 (July) 1945.

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NICOTINE CONTENT OF CIGARS AND CIGARETS

"Thirty cigarets, weighing about one gram apiece and containing about 2 per cent nicotine in the tobacco, might contain just about the same amount of nicotine as six cigars weighing about 5 grams apiece and with the same nicotine content," the March 23 issue of The Journal of the American Medical Association says in answer to an inquiry. Continuing, The Journal says in part:

"About one fourth of the nicotine content of the tobacco may be expected to appear in the puffed smoke, though this figure may vary greatly, depending on the manner of smoking. Only about 12 per cent of the nicotine escapes with the exhaled smoke after inhalation, as compared with about 33 per cent after simple puffing without inhalation, but in either case the bulk of the nicotine appears to be deposited in the mouth or air passages. Accordingly, it might be possible for the thirty cigarets inhaled to yield about the same amount of nicotine absorption as the six cigars not inhaled.

"Since either cigarets or cigars may vary greatly in their nicotine content, however, and the latter especially may vary greatly in size, and both may be smoked at widely different rates and with the discarding of greatly different amounts of tobacco and retained constituents of the smoke in the unburned stumps, this conclusion required much caution. Moreover, much nicotine may be absorbed from the unburned stump of a cigar by the user who chews or sucks as he smokes, while on the other hand the habitual spitter may rid himself by expectoration of some of the nicotine taken in.

"The nicotine discussed is the chief factor found in cigaret or cigar smoke which may be expected to affect the normal heart, with the production of changes in rate and rhythm and even in electrocardiographic patterns in some cases. Carbon monoxide in the smoke would be greater in the cigar smoke than in the cigaret smoke but rarely sufficient to produce symptoms. The same is generally true of the other constituents of tobacco smoke."

Atrophic Arthritis—Etiology and Treatment*

SYMPOSIUM ON "THE ARTHRITIDES"

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Although arthritis is a disease of great antiquity, there being plenty of evidence to show it had been rampant in prehistoric times, and although much time and effort have gone into the study of the etiology of the disease, the medical profession still finds itself groping for the specific etiologic agent. Investigators from time to time have made near positive statements regarding this or that agent as being the prime factor involved. Some are of the opinion that the disease is infectious, the majority who lean toward this theory believing that certain strains of the streptococcus or unknown viruses are the culprits. Others believe certain metabolic dysfunctions, allergies, endocrine disturbances, or conditions neurogenic in origin to be the motivating agents. Some ascribe one or all of these possibilities as merely contributory to "cause unknown." Recent research would suggest that the enigma may be solved in the not too distant future. I refer to those studies and conclusions which suggest that atrophic arthritis is a virus disease.

Freund(1) and his collaborators have proved definitely that a nodular perineuritis of the peripheral nerve trunks as well as a nodular polymyositis in skeletal muscles are constant findings in this disease, which in their opinion characterizes atrophic arthritis as a systemic inflammatory disease rather than one primarily affecting the joints. They state that there is a nodular lymphocytic inflammation, widespread in distribution, which involves the peripheral nerve trunks and skeletal muscles, and offer this evidence as an explanation for the frequently encountered clinical manifestations of pain, tenderness, trophic changes and muscle atrophy. The nodules in the muscles are practically identical to those found in the trunks of the peripheral nerves and in nerves having no articular distribution, such as the iliohypogastric and ilio-inguinal. Other changes found in the muscle fibers of patients afflicted with atrophic arthritis are hydropic degeneration, loss of striation, edema, marked swelling or shrinkage, and atrophy. Whether these lesions precede or follow the involvement of joints or are intimately connected with small blood vessels or nerves is not clear. In my opinion pathology of this character could well account for some of the protean complaints and findings accompanying this disease.

Gordon(2), reporting in the Annals of the Rheumatic Diseases, was able to produce atrophic arthritis in animals by using a strain of streptococcus in combination with a virus obtained from smallpox crusts, the latter being known as the M4 Strain of Tullock. After inoculating the virus at a given point he was able to demonstrate that the lymphatics draining the area secondary to the point of inoculation were laden with virus comparable in number to the virus recovered from the synovial serofibrinous exudate, and interestingly enough, noted that although the virus was still present the streptococci had disappeared. If the virus has the power to eventually liquidate the bacteria, assuming that atrophic arthritis in human beings is due to a streptococcus-virus combination, this could well explain why investigators have been unable to demonstrate organisms, either by culture or pathologic section from involved joints, even though the bacteriologic study was made immediate to an early diagnosis. It would follow that bacteria might be found if it were possible to make bacteriologic studies during the pre-clinical stage of the disease.

The research and conclusions predicated by Freund and his associates, as well as those of Gordon, have been substantiated by others. Their findings, it would seem, are definite enough as far as they go, and might be the explanation for many of the more generalized symptoms and physical findings incident to atrophic arthritis. I believe that they have paved the way for future research on this subject, which may in turn provide the medical profession with preventive as well as specific therapy. Smallpox and yellow fever have been conquered through research comparable to that just mentioned. Poliomyelitis, measles and atrophic arthritis may some day be added to the list.

TREATMENT

The treatment of atrophic arthritis has always been more or less empiric, and to date most unsatisfactory. Until etiology and specific therapy are established, arthritis will continue to top the list of disabling diseases, because of the resultant irreversible pathologic changes. Treatment must be started early and should be aggressive if permanent disability is to be forestalled.

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Rest in bed is most important, especially during the acute stage of the disease, when painful and tender swollen joints, fever, depression and weakness predominate. As the acute processes quiet down the patient should be encouraged to sit up in a chair, and as soon as possible walk short distances. Unless this course is followed many patients will develop permanent joint disabilities, and should the disease affect joints such as the hips and knees crippling deformities will result, condemning the individual to permanent invalidism. Active and passive movements of joints as well as muscle massage must be faithfully carried out. The skin should be watched closely and protected during this period so that bed sores, which only add to the discomfort and general debility of the patient, may be avoided.

Unfortunately many of these patients have little or no appetite, and when this is encountered it becomes obligatory on the part of all concerned with the care of the patient to try their utmost in persuasion. Insulin is quite helpful in whipping up the appetites of some of these patients. Atrophic arthritis in itself is a debilitating disease and unless all foods making up a maintenance diet are ingested, further debility will follow. Personally I see no reason why a patient who has atrophic arthritis should not be on a normal well balanced diet. Normal weight for height and age is the goal. If obese, calories may be cut, or if underweight increased. High carbohydrate diets have been advocated by some; others have suggested high protein-high carbohydrate-low fat diets. My experience leads me to believe that an adequate diet with the normal ratio between protein, carbohydrate and fat, is most satisfactory. If necessary, minerals and vitamins may be supplemented. Fluids, especially water, should be forced.

Much has been said and written regarding the role of focal infections in this disease. I subscribe to the idea that any discoverable focus of infections should be eliminated if possible. I do not believe that the removal of foci will cure the disease process after atrophic arthritis has been established, although if removed early, in many instances the process will be deterred, and in a few eliminated. The removal of foci will lessen the general load and aid in holding concurrent conditions such as anemia to a minimum. It is conceivable that therapy directed against arthritis will not approach the desired result until foci are removed.

Concurrent diseases and deficiencies, as in all other combinations of diseases, act as contributing agents which not only complicate the course of arthritis but the treatment as well, and when encountered must be treated. Vitamin deficiencies must be corrected, endocrine disturbances righted, and anemia combated, which in some instances is hard to control. Digestion and elimination must be as near normal as possible. Therefore, vitamins, endocrine products, iron, liver, transfusions, hydrochloric acid, or mild laxatives should be prescribed to fit the need. I am not, however, one who subscribes to the belief that any one or any combined vitamin deficiency is the etiologic factor involved, no more than I believe that hyperthyroidism or hypothyroidism is the etiologic factor. In my experience the use of vitamins in tremendous dosage has had no effect whatsoever on the process of the disease. If the vitamin deficiency is secondary to inadequate diet or adsorption, then vitamins in normal dosage should be supplemented.

DRUGS DIRECTED TOWARD THE DISEASE ITSELF

Sodium salicylate for many years has been the drug of choice in the treatment of rheumatoid diseases. This drug, if used as an analgesic or antipyretic, has its place. Its curative power is worthless, it seemingly having no effect on the causative agent. I believe acetylsalicylic acid, or aspirin, is as good as anything we have for this purpose. However, I do not tell the patient that aspirin is being used. The patient with arthritis expects something more than mere aspirin, and if for no other reason than the psychologic effect, he should not be permitted to know that he is on what to him is a commonplace household remedy for headache. For this reason I frequently prescribe it in capsule form. Bee venom, sulfa drugs, penicillin, vasodilators such as histamine and choline—all of these have been tried with disappointing results. I have used the sulfa drugs and penicillin in the treatment of atrophic arthritis and have not been able to demonstrate any appreciable effect. From the standpoint of etiology this may be another straw in the wind, for although these drugs have deadly effect on a great many bacteria, they are practically impotent against the viruses. It has been observed that the progress of the disease has been cut short in arthritics developing symptomatic jaundice. Accordingly jaundice has been artificially produced by giving large doses of bile salts. Here again the results have been disappointing.

It was with considerable skepticism and some fear that I first used gold therapy six years ago. Today I believe it is the nearest approach to a specific that we have in treating selected cases of atrophic arthritis. Through the experience of those who have had the opportunity of treating this condition in mass formation with gold salts, much has been added to our knowledge regarding dosage, contraindications and complications. Since it has been found that doses much smaller than those originally prescribed are just as effective, many of the dreaded toxic reactions have been eliminated or minimized.

There are quite a few gold salt preparations, but my experience has been limited to the use of gold sodium thiomalate (myochrysine), which contains 50 per cent of the gold salts. I have not used gold thioglucose, which also contains 50 per cent of the gold salts. The gold salt in this preparation is suspended in an emulsion and is advocated because of the retarded rate of absorption. Neither have I used gold sodium thiosulfate, which contains only 37 per cent of the gold salts.

Gold therapy is selective therapy, and whether or not it is to be administered depends not only upon the patient's general condition, but particularly on normal or near normal function of liver, kidneys, pancreas and reticulo-endothelial system. It is important to know before starting therapy that the blood is normal, for some of the most alarming complications have to do with agranulocytosis and thrombocytopenia. Frequent rechecks of the blood, especially the white, differential and platelet counts, must be made if trouble is to be avoided. Careful consideration should be given to patients having diabetes or liver dysfunction, for it is well known that they are wide open for toxic reactions. The skin should be watched most carefully and on the first appearance of lesions past dosage should be maintained or decreased, or the drug temporarily or permanently discontinued. If this is not done an exfoliative dermatitis may result. Patients showing albumin, casts and red blood cells in the urine, suggesting the possibility of glomerular pathology, should be weighed in the balance in contemplating gold therapy. It must not be forgotten that gold salts are eliminated very slowly mainly via the kidney, and have been recovered in the skin up to two and a half years after the completion of a course. Because of slow elimination, delayed toxic manifestations frequently are encountered. Unfortunately we have no laboratory procedure which will guide us as to desired blood plasma levels. Freyberg(3) tried to establish a blood plasma level for gold comparable to that now used for potassium thiocyanate. This he was unable to do, nor was he able to trace any direct relationship between blood levels and the degree of toxic reactions.

Generalized exfoliative dermatitis, severe blood dyscrasias, the nephrotic syndrome and possibly pregnancy and ulcerative colitis constitute contraindications to further treatment with the gold salts. There are no therapeutic measures known which accelerate the detoxification of gold, and once the toxic reaction manifests itself, treatment is limited to the complication — such as pentnucleotides for agranulocytosis. High carbohydrate diet, liver extract, vitamins, calcium gluconate have their advocates for the prevention of some of the toxic reactions, but evidence to date would suggest that they are ineffective.

Myochrysine must be given intramuscularly, never intravenously. As previously pointed out, not only the amount in each dose but the total given to complete a so-called course has been drastically cut. Ten years ago as much as 500 mg. were given at a dose by some European investigators. Naturally the toxic reactions were frequent, severe, and in many instances the cause of death. Freyberg and others advocate low dosage, giving 10 to 15 mg. as an initial dose, 25 mg. for the second and third, and 50 mg. for subsequent doses until a total of 750 to 1,000 mg. have been given, which completes a course. I have made it a practice to give 25 mg. on the initial and second doses, and if no untoward results 35 mg. for the third and fourth doses. If well tolerated, subsequent doses of 50 mg. are given, to a total of 750 mg. A second course should not be started in less than four weeks, and preferably six weeks.

Results have been most gratifying, regardless of the stage of the disease in which treatment was started. The earlier treatment is started, the greater the opportunity of keeping sequelae at a minimum. Results are reflected in a return to normal temperature, decrease of pain, an improvement in sense of well being and appetite, and a gradual diminution in signs indicative of active pathology.

The orthopedist can render invaluable aid in the treatment of atrophic arthritis. Well directed and controlled splinting has minimized disability for many; the same may be said for traction. Radical surgical procedures have not been too productive of good results, undoubtedly due to the fact that the majority of such procedures are not attempted until the patient's disease and its end results have erased some highly important structures and depleted others.

Change of residence for the arthritic with the hope that a warm, dry climate might be helpful has seemingly aided only the few rather than the majority.

It is estimated that one hundred million man hours are lost in the United States every year because of the rheumatoid diseases, a great number of which are represented by unfortunate arthritics. Atrophic arthritis ranks second to none, including mental diseases and tuberculosis, as an economic burden which few can afford to carry.

Poliomyelitis has its millions of dollars for research and treatment. Would that there were a fund which would perpetuate research in atrophic arthritis to the end that the cause and cure of this scourge could be found. Atrophic arthritis is truly a challenge to the medical profession.

BIBLIOGRAPHY

1. Freund, H. A.; Steiner, G.; Leichtentritt, B., and Price, A. E.: Nodular Polymyositis in Rheumatoid Arthritis. Science, 101:202-203 (Feb. 23), 1945.

2. Gordon, M. H.: Experimental Fibrositis Due to Virus, and Some Observations on Experimental Production of Arthritis. Ann. Rheumat. Dis., 1:5-14 (Jan.), 1939.

3. Freyberg, R. H.; Block, W. D., and Levey, S.: Metabolism, Toxicity and Manner of Action of Gold Compounds Used in Treatment of Arthritis: Human plasma and synovial fluid concentration and urinary excretion of gold during and following treatment with gold sodium thiomalate, gold sodium thiosulfate and colloidal gold sulfide. J. Clin. Investigation, 20:401-412 (July), 1941.

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Metabolic Arthritides*

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The consideration of metabolic arthritis is rather a difficult one. The chief difficulty being as to whether the arthritis is a condition accompanying a metabolic disorder and both being caused by the same agent, or whether a true metabolic disorder may in turn cause an arthritis. I would like to offer for your consideration certain types of arthritis which for the sake of argument may be considered as metabolic. Under this classification I would like to consider: (1) gout; (2) arthritis associated with gallbladder disease; (3) menopausal arthralgia; (4) arthritis associated with thyroid dysfunction; (5) arthritis associated with allergy and (6) arthritis associated with psoriasis. I am aware of the fact that outside of gout, classifying the other forms of arthritis as metabolic disorder is highly counterversial. Without an attempt to enter into the argument as to whether or not these are truly metabolic disorders, I have attempted to list some of the commoner types found in the literature and considered by the authors as metabolic.

Gout is recognized as a constitutional disease, hereditary in character, affecting mostly the male. It may occur at any age, and is characterized by recurrent attacks of acute painful joints. The pain is caused by deposits of sodium urate crystals. One of the main findings is an abnormal amount of sodium urate in the blood. Gout may take on various forms. There may be practically no pain associated with the disease, and yet the patient may carry a high blood level of sodium urate. Or the condition may be quite painful and yet the sodium urate level may be very little above normal. There is also very little, if any, correlation between the clinical symptoms in the fluctuation in urate concentration of the serum.

The treatment of acute attacks of gout is relatively satisfactory with colchicum. This drug has long been used and still remains the drug of choice. While the drug relieves the pain of this condition, it does not affect the hyperuricemia, nor does it increase the renal excretion of uric acid. According to Bauer and Klemperer⁽¹⁾ the dosage advocated is 5/10 milligram every hour, or one milligram every two hours until relief from pain is obtained, or until nausea or vomiting or diarrhea result, at which time the drug is discontinued. The time required for relief of symptoms is from 24 to 72 hours. The total amount of drug usually required is from four to eight milligrams. A high fluid intake amounting to 3,000 to 4,000 cc. should be encouraged. Cradle protection of the part affected is indicated and moist heat is preferable to dry heat. As far as diet is concerned it should be well balanced and should contain adequate amounts of protein, iron, and vitamins. Patients overweight should be reduced. A low purine diet is inadvisable because it is monotonous and inpalatable if used over a long period of time. Such meats as sweetbreads, liver, kidney, brain, and meat extracts are better left out of the diet. Salicylates in large amounts have the power, apparently, of causing an excretion of uric acid, and must be given in doses about four grams a day.

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It is noteworthy that in almost every case of gout, an associated fibrositis may be found. Llewellyn(2) in 1920 stated that clinically one meets with all forms of fibrositis in association with acute articular gout. Burt and Gordon(3) state that they have seen attacks of fribrositis in gouty subjects as sudden in their onset as acute attacks in the big toe.

A second type of metabolic arthritis may be that which is associated with gallbladder disease(4). Weiss in a study of a series of cases, is of the opinion that gallbladder disease is present in at least 50 per cent of arthritic cases. It is a known fact that enlargement of the liver and spleen, associated with lymphadenopathy and anemia, are seen in the child who suffers from atrophic arthritis or Still's Disease. When an underlying cholecystitis is present, the gallbladder itself should be dealt with. There may also be associated a delayed blood sugar curve. Should the patient not improve under medical regime, surgical interference is indicated. The question involved in this type of case is whether the infection in the gallbladder is causing the disorder of that organ, or whether the disturbed metabolism associated with the diseased gallbladder is the main factor. Personally I feel that it is the metabolic disturbance more than the infection that plays the major role, but I will concede that both factors must be considered.

The third form of arthritis which may be considered as a metabolic disturbance is the arthralgia of the menopause or climacteric arthritis(5, 6, 7). Francis C. Hall, in an article describing seventy-one women at artificial menopause, noted that these women suffered from arthritis or from vague joint disturbances with great frequency. The women were treated with large doses of estrogenic material for many weeks. Fifty-three of the seventy-one suffered from arthralgia rather than true arthritis. There were eighteen cases of true arthritis. He believes there was evidence that the removal of the ovarian hormone may cause various joint disturbances — some mild and self-limited, others severe. It was the author's belief that there was evidence of a menopause arthritis associated with ovarian gland deficiencies and menopausal symptoms. Ishmeal, also writing on menopause arthralgia, stated that in forty-eight patients diagosed as a menopause arthralgia, there was satisfactory remission following injections of stilbestrol. This author also emphasizes the fact that all other forms of treatment are indicated as well, such as the removal of foci of infection, diet.

Arthritis has been discussed as occurring both with hypo, and hyperthyroid function. Measurement of the basal rate in rheumatic cases has produced definite evidence of the thyroid disorder(8). Many authors have reported cases of arthritis associated with thyrotoxicosis. Several authors have also reported the association of arthritic changes in hypothyroid and myxedema. Modern medical opinion however, does not accept the idea that disease of the thyroid gland merely signifies an increase or decrease in the normal secretion. Apart from an excess or a deficiency of thyroid secretion its actual composition may be at fault, a view which is well expressed by the term "dysthyroidism." The literature contains many reports of improvements of arthritis in cases of myxedema treated by thyroid and the same favorable results by thyroidectomy in hyperthyroidism. Some authors insist that the thyroid dysfunction may be due to the same cause as the arthritis.

A fifth form of arthritis which may be considered to be that of a metabolic disturbance is the type of arthritis found associated with allergy(9, 10). Vaughn states that among 1,000 adults, 20 per cent complained of past or present "rheumatism." 9 per cent had joint changes, usually of a low grade. 2.7 per cent found that certain specified foods produced exacerbation or recurrence of rheumatic symptoms. Of that group it was Vaughn's idea that certain foods definitely caused flare-ups in the disease. All of these 27 had other forms of allergy in addition to arthritis. Four suffered from simple intermittent hydroarthritis involving the large joints. Thirteen showed a predilection to involvement of the small joints. This condition is fairly infrequent. In my own experience in allergy it has been limited to two cases of hydroarthritis intermittent in character which responded to elimination diets.

A final form of arthritis, which I think is due to meabolic disturbance, is arthropathia psoriatica(11). This is a type of arthritis found rather infrequently associated with psoriasis.

The occurrence of this type of arthritis with psoriasis has been mentioned in the literature since 1822. While some authors are not willing to agree that the arthritis is caused by the same condition that causes the psoriasis, with the two conditions occurring together, it would seem to have the same common cause. The clinical features of the articular lesions are very similar to those of an infectious form of arthritis, but the arthritis, will get well if the patient recovers from his psoriasis. I would like to join with those who consider psoriasis with arthritis a definite clinical entity.

BIBLIOGRAPHY

1. Bauer, W., and Klemperer, F.: Treatment of Gout. New England J. Med., 231:681-685, Nov. 16, 1944.
2. Llewellyn, R. L. J.: Gout. London, W. M. Beaumont, 1920.
3. Burt, J. B., and Gordon, R. G.: Gout, An Unsolved Problem. Ann. Rheumat. Dis., 1:304-318, Oct., 1939.
4. Weiss, S.: Gallbladder Disease and Arthritis. Rev. Gastroenterol., 11:116-120, March, 1944.
5. Hall, F. C.: Menopause Arthritis. J.A.M.A., 113:1061, Sept. 9, 1939.
6. Hall, F. C.: Menopause Arthralgia. New England J. Med., 219:1015-1026, Dec. 29, 1938.
7. Ishmael, W. K.: Menopause Arthalgia. J. Lab. & Clin. Med., 27:297-303, Dec., 1941.
8. Poynton, F. J., and Schleslinger, B.: Recent Advances in the Study of Rheumatism. Phil., Blakiston's Son & Co., 1937, pp. 267-269.
9. Vaughan, W. T.: Palindromic Rheumatism Among Allergic Persons. J. Allergy., 14:256-264, March 1943.
10. Turnbull, J. A.: Changes in Sensitivity to Allergenic Foods in Arthritis. Am. J. Digest. Dis., 11:182-190, June, 1944.
11. Garrod, A., and Evans, G.: Arthropathia Psoriatica. Quart. J. Med., 17:171-178, Jan., 1924.

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Diseases Simulating Arthritis*

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According to surveys by the United States Public Health Service, rheumatism is by far the most prevalent chronic disease in the United States, exceeding by almost two to one the next most prevalent disease—heart disease. Rheumatism is second only to nervous and mental diseases as a cause of lost time and disability, according to these same surveys. Faced with these facts it would seem fitting that all of us should approach a consideration of the problem of rheumatic diseases with true humility and an acute awareness that our knowledge concerning the true mechanism of rheumatism is quite elementary. The past quarter of a century has seen us go through a changing conception of arthritis, and the present day trend is to appreciate the systemic nature of the disease, which is indeed a difficult problem when we understand neither the mechanisms of the systems which are involved, nor, in most cases, the etiology of the disease with which we are dealing.

In a discussion of any of the problems involving arthritis the acceptance of a workable classification of its types is essential, and there has been a general tendency toward simplification in this respect. The titles of this discussion, with very little modification, may be arranged into a basic classification for most of the arthritides. It might be modified as follows:

CLASSIFICATION OF ARTHRITIS

1. Rheumatoid arthritis (atrophic).
2. Chronic osteoarthritis (hypertrophic).
3. Arthritis due to specific infections.
4. Other conditions associated with arthritis, arthropathy and arthralgia. (Infectious, traumatic, mechanical, metabolic, allergic, neurotropic, etc.)

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This classification emphasizes the two major types of chronic arthritis which confront us daily, and has an amply large waste basket at the bottom to carry all the ad infinitum sub-headings we may need now or in the future. The classification advocated by the committee of the American Rheumatism Association is as follows:

1. Arthritis due to infection.
2. Arthritis due to rheumatic fever.
3. Arthritis rheumatoid.
4. Arthritis due to direct trauma.
5. Neurogenic arthropathy.
6. Arthritis due to gout.
7. New growth of joints.
8. Degenerative joint diseases (hypertrophic arthritis, etc.)
9. Hydroarthrosis.
10. Periarticular fibrositis.

If we accept this working classification it is immediately apparent that there are many other diseases in which arthritis, arthropathy, or arthralgia are frequently present. The following group is listed by the committee:

1. Acromegaly.
2. Acute disseminated lupus erythematosus.
3. Cyst of meniscus of knee.
4. Dermatomyositis.
5. Drug intoxication.
6. Erythema multiforma exudates.
7. Erythema nodosum.
8. Hemophilia.
9. Hysteria.
10. Ochronosis.
11. Osteochondritis dissecans.
12. Osteochondromatosis.
13. Periarteritis nodosa.
14. Psoriasis.
15. Raynaud's disease.
16. Reiter's disease.
17. Scleroderma.
18. Serum sickness.
19. Purpura.

This is indeed a modest list of the conditions that may simulate arthritis in one or more respects. In addition to these diseases they have seen fit to list a group of conditions, not called diseases, but other "disturbances of joints." These are as follows:

1. Disturbances of the joints secondary to abnormal postural strain.
2. Disturbances of the joints secondary to lesions of bone.
3. Primary neoplasm of the joints.
4. Disturbances of the joints associated with loose bodies.
5. Disturbances of the joints secondary to functional or psychogenic causes.

It is not within the scope of this discussion to enter into the detailed criteria of differential diagnoses. However, a reminder of the conditions which may give rise to mistakes in diagnoses and errors in management should sharpen our conception of the general problem. Comroe, in his recent monograph on arthritis, gives the following impressive list of diseases that may be mistaken for rheumatoid arthritis. This list does not include degenerative joint disease, gonorrheal and other specific forms of infectious arthritis, traumatic arthritis, other primary joint disturbances, but it is made up of numerous diseases, many of them not always thought of as causing joint pain:

Periarticular fibrositis; rheumatic fever; syphilis; subdeltoid bursitis; gout; weak, painful, pronated feet; peripheral neuritis (associated with alcoholism, diabetes, primary anemia, chronic poisoning); hypertrophic pulmonary osteo-arthropathy; tuberculosis; psoriatic arthritis; myxedema; hyperthyroidism; malingering; hemophilia; arthritic purpura; leukemia; hysteria; cervical rib and scalenus anticus syndrome; Raynaud's syndrome; scleroderma; acrosclerosis; calcinosis; parkinsonism; angina pectoris; lipomas; osteochondritis dissecans; osteomyelitis; Herpes zoster; polycythemia; intermittent claudication; drug intoxication; deficiency diseases (scurvy, beri-beri, rickets); hyperparathyroidism; Paget's disease; trichiniasis; erythralgia; infantile paralysis; periarteritis nodosa; malignant disease of joints; leprosy; lupus erythematosus; acromegaly; ochronosis; subacute bacterial endocarditis; coronary thrombosis; Boeck's sarcoid; dermatomyositis; serum sickness; palindromic rheumatism of Hench; Milkman's disease; arachnodactyly.

In considering this group of diseases it should be obvious that there is little or no excuse for confusing most of them with rheumatoid arthritis. Some of them are obscure and infrequently encountered diseases. They are characterized by low-grade fever, chronicity, joint pains and general disability, and may be quite difficult to differentiate. A much more common disease that occasionally presents extreme difficulty in differentiation is rheumatic fever. There are occasional cases where it is impossible to differentiate rheumatic fever from rheumatoid arthritis, and time must be allowed to give the final answer. Periarteritis nodosa and disseminated lupus erythematosus may present serious difficulties in differentiation. While there may be some overlapping of the conditions resembling rheumatoid arthritis and osteo-arthritis, or degenerative joint disease, there is probably less frequent cause for confusion with the latter. Negative x-ray findings do not exclude early degenerative joint disease, nor do positive findings, particularly about the spine, mean that pain in that area is due to these changes. That we frequently encounter difficulty in determining whether pain may be due to fibrositis or degenerative disease is at once apparent. We must also be careful in our evaluation of the narrowing of the intervertebral spaces, particularly in the lumbar region. These may be associated with degenerative joint disease or injury and herniation of the nucleus pulposus of the cartilage.

In conclusion, it would seem that with most of the conditions enumerated above, the underlying reason for mistakes or confusion will usually lie in failure to treat the patient as a whole, and consider that any complaint of a recurrent rheumatic nature warrants complete investigation of the patient. A careful and complete history, a thorough physical examination, laboratory work consisting of at least a routine urine, a complete blood count, sedimentation rate, blood Wassermann, possibly uric acid if the patient is a male, x-ray studies of the involved areas, and finally a careful consideration of all the evidence compiled will obviate most of the errors in diagnosis.

* * *

Osteoarthritis*

EDMOND WALSH, M.D.
Omaha, Nebraska

Hypertropic or osteoarthritis is a chronic degenerative disease of the joints which begins during or after middle age and is characterized by destruction of the cartilagenous surface of the joints.

ETIOLOGY

Heredity appears to play a definite role in the pathogenesis. Many patients relate that a similar type of arthritis is present in other members of their family. The common involvement of the weight bearing joints, the knees, hips and spine indicates that simple, often repeaded traumata are important contributing causes. Yet extensive osteoarthritic change is often seen in the terminal joints of the fingers of ladies who have not done any physical labor. Metabolic and endocrine factors seem to be very important. The type of degenerative arthritis which has its onset at or near the menopause does not differ anatomically, pathologically or roentgenologically from osteoarthritis seen in later life. Also frequent examples of osteoarthritis are seen to follow premature or artificially produced menopause in the fourth decade. In a certain sense osteoarthritis is to the joints what arteriosclerosis is to the arteries. The frequency of the coexistence of the two conditions is a common observation, while one is in no way dependent upon the other it is possible that both owe their origin to a common cause.

PATHOLOGY

The hyalin cartilage which covers the articular surfaces of bones is distinctly different from the dense fibrocartilage which constitutes the structures that bind together the component parts of the joint. Hyaline cartilage is not supplied with blood vessels and its power of regeneration is very feeble. Fibro-cartilage on the other hand is made up of dense white fibrous tissue and has excellent regenerative ability. The chief pathologic lesion is a softening and degeneration of the hyaline articular cartilages in stages with hypertrophy of the neighboring cartilage and bone which brings the articular surfaces into contact. Heberdens nodes are produced by granulation tissue at the joint margins being converted into cartilage or bone. Detached fragments of this tissue are designated "joint mice." There are no characteristic pathological changes in the synovial tissue. The pathological changes are confined entirely to the joint structure. Thus osteoarthritis is definitely not a systemic disease.

CLINICAL PICTURE

Osteoarthritis is practically always polyarticular. Heberdens nodes, the involvement of the terminal inter-phalangeal joints, leads all other joints in women, while the lumbar spine is the commonest site of osteoarthritis in men. The knees and hips are frequently affected while the elbow, wrist and ankle usually escape. Stiffness and loss of motion are universal complaints regardless of which joints are affected. Pain is present in varying degrees especially when the weight bearing joints are involved. Osteoarthritis of the cervical, thoracic or lumbar spine may be symptom free or may produce severe local and radicular pain, with radiation into the upper or lower extremities. There is rarely localized swelling, tenderness or effusion. The skin is dry and coarse and there is no muscular atrophy.

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*Read before the Omaha Mid-West Clinical Society, October, 1945.

DIAGNOSIS

The insidious onset of stiffness, pain and loss of motion for the first time in the joints just mentioned, in a person past middle age is highly suggestive of osteoarthritis. The patients are frequently obese but are usually otherwise in good health. The routine laboratory tests including blood count and sedimentation rate are usually within normal limits. Persistent deviations from normal should indicate the presence of some other pathological condition or the presence of a "mixed type," of arthritis. Osteoarthritis of the hip, known as morbus coxae senilis is most disabling, and quite common, especially in men. It is unilateral in about two-thirds of the cases. Pain in the hip, groin, or leg, and disability, are the chief symptoms. It may produce pain similar to sciatica or even severe backache from the compensatory lordosis which follows the fixed flexion of the thigh. Consequently careful x-ray study should be made of the spine, pelvis and hip joints in every patient. Lower extremity pain is at the present time responsible for the popularity of intervertebral disc operation. The x-ray findings in malum coxie senilis are quite characteristic. Exostoses occurs in 45%, narrowing of the joint space with exostoses in 50%. Flattening of the head of the femur may be displaced upward and outward and subluxation may occur.

The diagnosis of osteoarthritis of the cervical spine should be remembered in that large group of patients with complaints ranging from headaches, to pains through the neck and down the upper extremities. The common basal type of headache which persists after the menopause or during it, in spite of adequate treatment, is frequently due to osteoarthritis of the cervical spine. When osteoarthritis affects the throacic vertebrae primarily symptoms simulating angina, gallbladder, appendicitis, pleurisy and other digestive disorders are produced. Special study is required in the differential diagnosis of spondylitis and early angina or coronary disease as the two conditions can closely simulate each other. Osteoarthritis lesions of the lower spine produces pain radiating down the thigh and sensory changes and must be differentiated from ruptured inter-vertebral discs and sciatica.

The characteristic x-ray findings of osteoarthritis of the spine are lipping of the vertebral bodies and the formation of osteophytes. Osteoporosis and calcification of the ligaments are usually absent.

Osteoarthritis of the knee, the lesion which most frequently brings the patient to the physician presents no problem in diagnosis.

TREATMENT

As the onset of osteoarthritis is slow a good deal can be done in its prevention or at least to check the disease in any early stage. As osteoarthritis of the knee frequently follows traumatic injury of the cartilage the early removal of damaged cartilages that are giving symptoms will aid in prevention. The prevention of obesity and the reduction of persons who are overweight are very important. The elimination of faulty posture, and providing correct support and exercises for the feet are also important. As trauma is an important factor it is sometimes necessary to have the patient change his occupation, or even his recreation activities.

The first important step in active treatment after you have studied the patient and his disease process is to assure and convince him that this form of arthritis is not disabling as a rule, that it will not shorten his life, and that he will not become a cripple. The prognosis must be guarded somewhat in osteoarthritis of the hip as it can be quite disabling, but in all other forms this is not true. Once the patient's apprehension and worry are relieved and he realizes his condition is not hopeless he will usually follow a therapeutic regime which can be effective though simple. Physical therapy in the form of external heat, diathermy, massage and directed exercise is very useful. Moderate heat over a long period of time is preferred to excessive heat for short periods. If the patient is overweight reduction is absolutely necessary as some weight bearing joints always are, or will be involved in the process. Thyroid extract should nearly always be given a trial. It seems to help many even who do not show any clinical evidence of hypothyroidism. The iodides though purely on an empiric basis seem to help some cases and a trial is justified. Parenteral gold therapy is contra-indicated in osteoarthritis as the risk involved is greater than the benefits to be expected.

For the relief of pain salicylates are the sheet-anchor. Opiates should never be used unless absolutely necessary and then preferably in a hospital. If large doses of aspirin and phenacetine are not effective, demerol which is reputed not to be habit forming may be given a trial. The application of counter-irritants in the form of linaments or ointments should not be forgotten. The acetyl-beta choline preparations such as imadyl unction have a more prolonged action.

There is a great deal of controversy at present about the value of massive doses of Vitamin "D." Dependable, controlled unbiased clinical investigation in large arthritic clinics has so far failed to support the claims made by the manufacturers. Whether we prescribe massive doses of Vitamin "D" or not there is going to be a great deal of it taken by people with arthritis because of the present advertising to the laity. So it is necessary for all physicians to be familiar with its toxic effects, some of which are quite serious. Gastro-intestinal upsets in nature of nausea, pain, vomiting and diarrhea are not uncommon. More serious are the kidney lesions. Hematuria is common; anuria and uremia resulting in death have been reported. It is necessary for the patient to have a high intake of fluids if he wishes to take Vitamin "D" in massive doses.

In certain carefully selected cases of osteoarthritis of the hip where the pain and disability are great and the disease limited to the one hip joint fixation of the joint is indicated. A painless hip with no motion is better than a very painful hip joint with a little motion. Removal of the head of the femur with replacement with a vitallium cap is rarely done. Synovectomy is occasionally indicated in painful monarticular lesions of the knee.

Psychotherapy, the guarding of the patient's health in general, supplying a nutritious diet, seeing that the patient gets plenty of rest and sleep all have a very important place in therapy.

* * *

Surgery of the Arthritides*

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Omaha, Nebraska

The surgical aspects of this problem may be divided into two groups (1) the acute and chronic suppurative infections and injuries of joints, and (2) certain mechanical problems which may arise in all types of arthritis.

ACUTE SUPPURATIVE ARTHRITIS

Acute pyogenic infections of joints are either blood borne or the result of direct extention from an adjacent focus of osteomyelitis or of contamination through a puncture wound. Treatment of these joints was radically changed with the advent of first the sulfa drugs and then penicillin. Now, most of them are cured without recourse to surgical drainage. In addition to the systemic administration of these drugs, particularly penicillin, it may be necessary to empty the joint by aspiration and on occasion to instill an aqueous solution of penicillin (20,000 to 100,000 units) every eight hours or at less frequent intervals as indicated. Traction should be applied immediately to prevent pressure damage to the joint cartilage and to prevent contracture deformity. Active motion in traction should be instituted as early as it can be tolerated. In the occasional case requiring drainage the joint should be adequately opened but never should rubber wicks or other drainage material be inserted into the joint. Again traction and early active motion in traction are essential accompaniments. Compound wounds (puncture and lacerations) require in addition to penicillin and traction immediate debridement, copious saline irrigation and an adequate prophylactic dose of tetanus antitoxin.

Gonorrheal arthritis should be suspected when only a single joint is involved in an inflammatory process associated with rather less systemic reaction than that which accompanies the other pyogenic infections of joints. Usually a history or evidence of a urogenital infection can be elicited. These joints almost invariably respond rapidly to the sulfa drugs or penicillin. A brief period of immobilization and of traction are often indicated. Supplementary measures to eliminate the primary focus, such as prostatic massage in the male and salpingectomy in the female, may be necessary if chemotherapy fails.

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*Presented as part of a symposium on Fractures before the Omaha Mid-West Clinical Society, October, 1945.

TUBERCULOUS ARTHRITIS

Tuberculous arthritis may occur at any age but principally in children and usually involves a single joint or a single group of continguous joints. It is characterized by chronicity, indolence, and destruction. A biopsy from the joint may be necessary to establish the diagnosis. Since healing takes place by ankylosis of the joint, it is absolutely necessary to immobilize the joint in the position of optimal function and to maintain immobilization until fusion is accomplished or to fuse the joint in the position of optimal function by an extra or intra-articular fusion operation.

CHRONIC NON-TUBERCULOUS SYNOVITIS

There is an uncommon group of cases of obscure etiology characterized by chronic or intermittent painful swelling of a joint with hydroarthrosis, in which the synovia is thickened and inflamed. If conservative methods fail exploration of the joint is indicated and in the absence of other disease, a synovectomy, the removal of the synovial membrane, should be done and this usually results in a cure.

HEMARTHROSIS

Much blood in a joint as result of trauma or a bleeding disease is likely to result in chronic arthritis if permitted to remain to be absorbed. For this reason, it is very necessary to remove the blood by aspiration.

II. Mechanical Problems—

Surgical interest in the remaining arthritides is concerned with mechanical problems and will be discussed accordingly.

PREVENTION AND CORRECTION OF FLEXION DEFORMITY

Patients suffering inflamed joints usually under tension of increased fluid and regardless of etiology minimize the pain by flexing these joints. If the position is maintained for some time, flexion contractures develop. It is the duty of the physician to prevent this by the early application of traction or by means of braces or splints. This problem in the infected joints is discussed above.

There is another group, the chronic deforming arthritides including atrophic and other types of arthritis deformans in which much deformity can be prevented by the early application of braces. Often it is feasable and necessary to correct disabling contractures by traction, manipulation or operative intervention and then maintain correction by means of braces, splints, etc. On occasion arthrodesis in the corrected position is indicated. Certain disabling deformities with bony ankylosis as the result of trauma, suppuration or arthritis deformans may be corrected by an osteotomy.

JOINT MOBILIZATION

In cases of traumatic arthritis, immobilization and disuse arthritis and periarthritis, judicious and adequate physiotherapy often is curvative. In only a few types of cases is passive or forced motion by manipulation advisable. This is particularly useful in certain stiff contracted shoulder and ankle joints.

In selected cases of arthritis deformans and certain cases in which joints have ankylosed as a result of suppurative disease or trauma. arthroplasty to restore joint motion is indicated.

INTERNAL DERANGEMENT

In certain cases of hypertrophic arthritis and arthritis resulting from trauma eburnated segments of bone may impinge along the joint margins or if broken off and loose in the joint may impinge within the joint. This causes pain, instability and on occasion locking of the joint. In most instances the synovial membrane is hypertrophied and in some the semilunar cartilages are torn.

Adequate relief may be obtained from support such as an elastic knee cap. In certain cases an arthrotomy is indicated to remove loose bodies or to perform what has been described as a debridement of the joint. This constitutes excision of the eburnated bone and synovia, and in the knee, the joint usually debrided. the semilunar cartilages. In two cases of hypertrophic arthritis in which I performed a debridement of the knee joint a very gratifying relief of pain was obtained. From observing these cases, I am convinced that the operation should be used more often in this group of cases.

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THE PLATFORM OF THE AMERICAN MEDICAL ASSOCIATION

The American Medical Association advocates:

1. The establishment of an agency of federal government under which shall be coordinated and administered all medical and health functions of the federal government exclusive of those of the Army and Navy.

2. The allotment of such funds as the Congress may make available to any state in actual need for the prevention of disease, the promotion of health and the care of the sick on proof of such need.

3. The principle that the care of the public health and the provision of medical service to the sick is primarily a local responsibility.

4. The development of a mechanism for meeting the needs of expansion of preventive medical services with local determination of needs and local control of administration.

5. The extension of medical care for the indigent and the medically indigent with local determination of needs and local control of administration.

6. In the extension of medical services to all the people, the utmost utilization of qualified medical and hospital facilities already established.

7. The continued development of the private practice of medicine, subject to such changes as may be necessary to maintain the quality of medical services and to increase their availability.

8. Expansion of public health and medical services consistent with the American system of democracy.

ANNOUNCEMENTS

NEBRASKA SURGICAL PLAN CHANGES NAME TO NEBRASKA MEDICAL SERVICE

The Board of Directors of the Nebraska Surgical Plan, at its April meeting in Omaha, voted to change the name of the Corporation to Nebraska Medical Service. This was found to be advisable in view of the fact that the Nebraska Medical Service now will provide for "In Hospital Medical Care" in addition to Surgical and Materity services.

Nebraska Medical Service is the nonprofit, voluntary prepayment medical care plan sponsored by the Nebraska State Medical Association to provide medical services for the people of this State.

Nebraska Medical Service will continue its close affiliation with the Nebraska Blue Cross organization, with offices at 330 City National Bank Building, Omaha, Nebr. Nebraska Medical Service is a charter member of the Associated Medical Care Plans approved by the American Medical Association. Membership in the Associated Medical Care Plans will provide benefits on a national level to the enrollees in the Nebraska Medical Service.

The College of Medicine of the University of Nebraska announces a post graduate course in Pediatrics lasting three days, June 17, 18, and 19, 1946 to be held at the University Hospital in Omaha. The lectures and demonstrations will be given by members of the Pediatric Department and consultants in other specialties. The topics to be included are:

Sedatives and Stimulants in Children.
Disorders of the Blood and Bone Marrow.
The Significance of the Rh Factor in the Management of Pregnancy.
Newer Aspects of Poliomyelitis Therapy.
Problems of Behavior in Children.
Neurosurgical Indications in Pediatrics.
Interpretation of X-Rays.
Modern Immunization Practices.
Modern Concepts of Tuberculosis Management in Children.
Urologic Problems in Pediatrics.
Modern Therapy of Osteomyelitis.

In addition, selected cases from the pediatric wards will be presented and discussed.

This course is open to all Nebraska Physicians but limited to a registration of fifty. There is a registration fee of $5.00. Applications must be in by June 7 accompanied by this fee and are to be mailed to: Chairman, Department of Pediatrics, University Hospital, Omaha 5, Nebraska.

Housing, which includes room and breakfast and lunch, will be available at the Phi Rho Sigma fraternity house across the street from the hospital at the rate of $4.00 per day.

Have you made your reservation for the American Medical Association Sessions in San Francisco? If not, write to Dr. M. Laurence Montgomery, Chairman Housing Committee, American Medical Association, Room 200 Civic Auditorium, San Francisco, Calif. The Sessions begin July 1.

The survey on pediatric care in Nebraska, sponsored by the American Academy of Pediatrics, is now in the process of organization. It is hoped that every physician will enter into the spirit of the survey and cooperate fully. Only through full cooperation will it be possible to arrive at a sane conclusion on pediatric needs in this State.

In view of the present sugar shortage in the United States, practicing physicians throughout the country may be interested in what the Subcommittee on Medical Food Requirements of the National Research Council in Washington, D. C. thinks of the use of sugar for the treatment of diseases.

This subcommittee serves in an advisory capacity to the Office of Price Administration in its consideration of cases submitted to it by individuals appealing from decisions of its field offices in applications requesting sugar in addition to the regular allotment, alleged to be necessary because of illness.

The following represents the considered judgment of the subcommittee on Medical Food Requirements:

"Additional rationed sugar, beyond the 15 pounds per capita per year now allocated under current rationing regulations, is not essential in the treatment of any disease, because unrationed sources of carbohydrate, including syrups, preserves and processed fruits and juices, are now readily available to provide a source not only of readily assimilable carbohydrate, but also a wide range of palatable substances calculated to appeal to the palate of individuals, sick and convalescent, whose appetites have been impaired by illness."

AN APPEAL

At the outbreak of World War II, the Scientific Library of the Bureau of Science, an office under this Department, had one of the largest and best known collections of technical and scientific publications in this part of the Orient. This same library was destroyed by the Japanese during the war.

We shall appreciate it, therefore, if you will kindly help us in the task of building anew from scratch some such collection by donating to the library whatever publications you can spare now and in the future. Please send them addressed to: Scientific Library, Bureau of Science, Manila, Philippines.

UNITED STATES CHAPTER, INTERNATIONAL COLLEGE OF SURGEONS, MEETS IN DETROIT

The International College of Surgeons, United States Chapter, will hold its Eleventh Annual Assembly and Convocation in Detroit, Monday, Tuesday, Wednesday, October 21-22-23, 1946.

Surgical clinics in Detroit hospitals will feature the first morning of the Assembly. Thereafter all the meetings, the Convocation, and the Exhibition will be held in the Masonic Temple, a splendid building affording every convenience. The Detroit Statler and the Book-Cadillac will be hotel headquarters.

Officers of the International College of Surgeons, United States Chapter, include President Herbert Acuff, M.D. of Knoxville, Tennessee; President-Elect Custis Lee Hall, M.D. of Washington, D. C.; and Louis J. Gariepy, M.D. of Detroit, Executive Secretary. Dr. Gariepy, General Chairman of Arrangements for the Detroit Assembly advises that satisfactory housing accommodations for the 1946 Assembly have been assured through the Detroit Convention & Tourist Bureau. Copy of Program and detailed information may be obtained by writing Dr. Gariepy at 16401 Grand River Avenue, Detroit.

The next oral and written examinations for Fellowship in the American College of Chest Physicians will be held at San Francisco on June 29, 1946. Applicants for Fellowship in the College who plan on taking the examination should communicate with the Executive Secretary, American College of Chest Physicians, 500 North Dearborn St., Chicago 10, Illinois.

The Twelfth Annual Meeting of the College is scheduled to be held at the Sir Francis Drake Hotel, San Francisco, June 29-30, July 1-2.

NEWS and VIEWS

According to recent press announcement, Dr. C. W. M. Poynter, who has been Dean of the University of Nebraska College of Medicine since 1929, is retiring from his office at the end of the academic year, July, 1946. The successor to Dr. Poynter is Dr. Harold C. Lueth, former liaison officer between the United States Army Medical Corps and the American Medical Association. Dr. Lueth graduated from Northwestern University Medical School in 1930. Prior to entrance into military service he had practiced internal medicine in Chicago, and was associate professor of medicine at the University of Illinois College of Medicine. Dr. Lueth was recently retired from military service as a Colonel in the Medical Corps.

VA SEEKS QUALIFIED PHYSICIANS FOR AREA

Qualified physicians are being sought to fill full-time vacancies existing at Veterans' Administration hospitals in Minnesota, Nebraska, Iowa, North and South Dakota at salaries ranging from $3,640 to $5,180.

Specialists certified by the American Specialty boards of the VA will be paid an additional 25 per cent of base pay.

Managers of regional offices and hospitals have been authorized by Washington to fill positions in junior, associate and full grade.

Interested physicians are asked to apply to the manager of the nearest regional office, hospital or center, or to the branch office, 328 Midland Bank building, Minneapolis. Preference of location will be given consideration consistent with the needs of the service.

Physicians seeking appointment at higher than full-grade (more than $5,180 per annum) should make application direct to the Chief Medical Director, Veterans Administration, Washington 25, D. C.

The five-state Branch-8 area needs 211 such physicians. Individual state requirements are: Minnesota, 138; Nebraska, 29; Iowa, 23; South Dakota, 16, and North Dakota, 15.

The Sandhills Region Health Association is in operation again with clinics in charge of Dr. Jim Brown who formerly practiced at Valley, Nebraska. Dr. Brown is a graduate of the University of Nebraska Medical College, and interned in Texas. He then came back to Valley to practice, but later enlisted in the Army. He has served overseas and was recently discharged.

The following item is from the Associated Press, dated March 11, 1946:

Although two-thirds of approximately 60,000 doctors taken into the armed services have been discharged, there is not immediate relief in sight for the civilian doctor shortage, according to a report today by the Northwestern National Life Insurance Co.

The reason for the continued shortage, the report said, is that three out of four of the discharged doctors either are taking, or plan to take, additional courses of medical study before returning to civilian practice.

The report said that, except for women students and 4-F's, the entire graduating classes of American medical schools, totalling about 5,000 annually, were absorbed into the armed services during the war years. Now a heavy majority of those graduates are setting out to become specialists in various fields which means three years of additional study, the report said.

"Also a majority of older doctors who enlisted from private practice are taking various courses of continuation study, so that they may add the latest developments in civilian medicine to their wartime medical experience," the report said.

From an analysis of the nearly 200 ex-service doctors now taking postwar study at the University of Minnesota medical school, the insurance company reports that the typical doctor-veteran post-graduate student is 32 years old, is married, has one or two children, has completed seven years' schooling and a year of internship, and was in service from three to five years.

OFFICE OF THE SURGEON GENERAL

GENERAL KIRK OUTLINES ADVANTAGES OF REGULAR ARMY CAREER FOR DOCTORS

Advantages offered in the Regular Army for the purpose of attracting doctors to maintain the Medical Department's high wartime standards were outlined by Major General Norman T. Kirk, Surgeon General of the Army, in a recent talk at convocation ceremonies for the 44th General Hospital and the 135th Medical Group at the University of Wisconsin.

"All general hospitals," General Kirk stated, "will be centers for certain types of cases, where medical officers will get exceptionally wide and varied experience in residency-type training. It is our policy to assign and train these medical officers so that they may obtain board certification by the American Specialty Boards.

"Also, looking to the future when some other emergency might arise, we are working on a program that will preserve and foster the kind of cooperation and assistance which your 44th General Hospital and 135th Medical Group gave us. We will look to the 'sponsored' medical units to provide the qualified, integrated personnel for the operation of certain types of military hospitals and other medical units. In time of an emergecy, mobile and fixed hospitals must be completely integrated units, each with a harmonious staff of competent doctors so coordinated and organized as to function with the least possible delay. The civilian-sponsored medical units organized and staffed by our large medical institutions meet these requirements. They provide for early availability, early departure and immediate employment in an emergency."

General Kirk praised the "espirit de corps that is surpassed in but few organizations" and commended the 44th General Hospital and the 135th Medical Group for their record in World War II.

The 44th is well-known for its stand against an attack by Japanese troops on Leyte, when several doctors were injured. The Japanese dead numbered seventy-five.

GERMANS ATTEMPTED TO EMPLOY MALARIA AS A WEAPON IN WORLD WAR II

An effort on the part of the Germans to employ malaria as a military weapon by encouraging U. S. Army soldiers to disregard malaria prevention measures was discovered in German laboratory documents captured during the last phases of the war in Europe, according to a report submitted by Major Saul Jarcho, Director of the Medical Intelligence and Health Education Division, Preventive Medicine Service, Office of the Surgeon General.

The captured material, consisting of textbooks, reprints, and miscellaneous field notes, chiefly meteorological, also included a single sheet of paper on which was typewritten a short essay entitled "Italy's Malaria Belt."

Based on a theory that a case of malaria, along with subsequent relapses, will keep the soldier safe in the hospital and out of harm's way, the paper warns that anti-malarial drugs will upset the stomach and will "make the strongest man impotent." It also advises that mosquito nets keep out the fresh air and that a "regular guy" is not afraid of a few mosquitoes, anyway.

"The text," said Major Jarcho, "is an ingenious combination of truth and falsehood. Although malaria is by no means a harmless disease, the fatality rate in Italy is low and a soldier would be safer in a protected hospital than in the front lines. While it is true that atabrine, especially if taken on an empty stomach, is capable of producing digestive disturbances, there is no evidence that the drug produces either infertility or impotence."

The captured essay concludes with the jovial suggestion: "Well, you son-of-a-gun, what about a good malaria, so you won't count to the deads of the last attack before the war's end?"

"The wording of the broadside," commented Major Jarcho, "is familiar, friendly and colloquial. There are several errors which betray the German origin, e.g., mosquito-stitches for mosquito bites and richt for right. Both the text and the emendations display familiarity with American slang."

HOSPITAL NEWS

AMERICAN HOSPITAL ASSOCIATION URGES SPEEDY ENACTMENT OF HOSPITAL CONSTRUCTION ACT, S. 191

A plea for prompt and favorable consideration of the Hospital Survey and Construction Act, S. 191, as passed by the Senate, was urged by Donald G. Smelzer, Immediate Past President of the American Hospital Association, at a hearing before the Subcommittee of the Interstate and Foreign Commerce Committee of the House of Representatives, in Washington, March 7th, Peter D. Ward, M.D., president, has written.

BLUE CROSS PLAN SHOWS GROWTH IN 1945

Gains of more than $100,000 in earned income and a comparable increase in the amount of benefits paid out for members were indicated by the annual report of the Associated Hospital Service of Nebraska, the Blue Cross Plan, for 1945. Total income reached $304,865.89 and hospital claims paid amounted to $223,312.12, both amounts being the largest in the Association's history. The sum of $25,448.82 was added to reserves, making a total net surplus of $70,915.98 at year's end.

Blue Cross, which at year's end had reached 60,000 members in Nebraska drew high commendation in Pathfinder Magazine, January 9 issue, and TIME Magazine, March 11, the latter publication asserting that only government intervention could stop the progress of the Blue Cross movement.

ACUTENESS OF NURSE SHORTAGE EMPHASIZED BY OMAHA HOSPITALS SURVEY

That the frequently repeated statement relative to the grave shortage of general duty nurses is no "wolf, wolf!" story is borne out by a study just completed by D. W. Duncan, Secretary-Treasurer of Omaha Hospital Council, among member institutions of the organization.

Graduating students numbering 333, and 113 registered staff duty nurses entered some branch of military nursing service, Mr. Duncan's survey disclosed, during the war emergency. Of this number, only 27 have returned to hospital general duty nursing staff service, of whom 5 proferred their services on either a temporary or part time basis! And this in the face of hospital occupancies ranging from 90 to 110 percent, or more, of normal capacity!

Where have the nurses gone? From 85 to 90% have married, or plan to marry soon, the survey shows; a few still are enjoying terminal leave privileges and pay; the remainder are planning further studies under the GI Bill of Rights, or are forsaking nursing for other fields, including air line and railroad hostesses, etc.

ADMINISTRATORS WORRY AS INFLATIONARY TREND HIKES HOSPITAL COSTS

The inflationary trend harrassing the nation's economic recovery continues increasingly to provide worries and more gray hair for hospital administrators, who are faced jointly with the responsibility of meeting mounting operational costs and at the same time trying to hold down the size of hospital patients' bills. Almost daily, announcements are received of new advances in prices of badly needed equipment, and every-day "bread and butter" supplies.

Notices received thus far during March have included advances of approximately 15 percent on surgical dressings, effective March 12; ten to 25% increases on sutures, in effect March 18; anesthesia equipment, 15%, March 14; penicillin, 12½ percent, March 16. In addition, sterilizing equipment manufacturers recently have announced advances of 20% on their products, while prices on other lines of equipment and furnishings have gone upward 10 to 20 percent. Inner-spring hospital mattresses, too, have seemed to lose some of their comfort and resiliency, with quotation hikes of 20 to 25 percent, during February and March.

Food costs, likewise, have continued an upward spiral, with meats as the latest important item of the hospital menu to score advances of several cents per pound, in the wage of the recent packing house workers' strike settlement, which brought them wage increases of 16c per hour.

Steam coal prices in recent months have suffered several upward revisions, this fuel now being $1 per ton, or 20% higher than before the spiral began.

Nebraska hospital administrators report salary schedules at the highest point in history, with the likelihood of still further advances becoming necessary, in the face of the government-approved wage hikes in the nation's leading industries and the bill now before Congress for a minimum wage scale of 65c per hour, and an eventual 75c minimum by 1950.

Where the spiral will stop, and what additional part of the load may be passed on to patients in the way of higher charges for hospital care, are the questions uppermost in mind and discussion whenever hospital executives meet.

—From Nebraska Hospital News.

A.M.A. COUNCIL ON MEDICAL SERVICE AND PUBLIC RELATIONS

Bulletin No. 28

NEW BILLS INTRODUCED

S. 1850 by Mr. Kilgore of West Virginia (for himself, Messrs. Magnusson, Johnson of Colorado, Pepper, Fulbright, Saltonstall, Thomas of Utah and Ferguson), February 21. A Bill to promote the progress of science and the useful arts, to secure the national defense, to advance the national health and welfare, and for other purposes. Referred to the Committee on Military Affairs.

Comment: This bill was drafted by the War Mobilization subcommittee of the Senate Military Affairs Committee, after holding hearings in joint session with a Commerce subcommittee on S. 1285, S. 1297 and S. 1720.

S. 1865 by Mr. Radcliffe of Maryland, February 26. A Bill directing the Secretary of Commerce, through the Bureau of the Census, to make a survey of physically handicapped citizens. Referred to the Committee on Commerce.

S. 1875 by Mr. Pepper of Florida, February 27. A Bill to authorize and request the President to undertake to mobilize at some convenient place in the United States an adequate number of the world's outstanding experts, and coordinate and utilize their services in a supreme endeavor to discover means of curing and preventing cancer. Referred to the Committee on Foreign Relations.

Comment: Identical to H.R. 4502 (Report in Bulletin No. 23). Bill would authorize $100,000,000 for cancer research.

S. 1883 by Mr. Langer of North Dakota, March 1. A Bill authorizing the appropriation of $3,750,000,000 for use in making studies relating to the prevention, diagnosis, and treatment of cancer. Referred to the Committee on Education and Labor.

S. 1888 by Mr. Langer of North Dakota, March 1. A Bill to authorize the appropriation of $3,750,000,000 for use in combating infantile paralysis. Referred to the Committee on Education and Labor.

Comment: The bill states, in part, "The funds authorized to be appropriated—shall be disbursed by the Secretary of the Treasury upon vouchers approved by Sister Kenny."

S. 1891 by Mr. Langer of North Dakota, March 1. A Bill to protect the public health through the detection of certain diseases, and for other purposes. Referred to the Committee on Education and Labor.

Comment: The Surgeon General is authorized to provide means for securing a specimen of the urine of each person of the United States and providing for its examination analysis. A report of the findings is to be made to the person furnishing the specimen and detection of the presence of a disease is to be reported to health authorities of the community. Specimens are not to be collected "more often than once every six months."

H.R. 5572 by Mr. Lemke of North Dakota, February 25. A Bill to prohibit experiments upon living dogs in the District of Columbia and providing a penalty for violation thereof. Referred to the Committee on the District of Columbia.

Comment: Differs from H.R. 491 (Reported in Bulletin No. 7) in accepting "operations normally performed for the convenience of the owner and the welfare" of the dog. Hearings were held on this bill on Feb. 28.

H.R. 5628 by Mr. Priest of Tennessee, February 28. A Bill to amend the Public Health Service Act to authorize grants to the States for surveying their hospitals and public health centers and for planning construction of additional facilities, and to authorize grants to assist in such construction. Referred to the Committee on Interstate and Foreign Commerce.

Comment: This is the latest hospital construction bill, the others being H.R. 2498, H.R. 2755, H.R. 3561, H.R. 3845 and S. 191. H.R. 5628 is S. 191 with the amendments incorporated which were offered by Senator Murray but rejected when S. 191 was passed by the Senate.

H.R. 5685 by Mr. Rogers of New York, March 6. A Bill to provide for the national health and productive power of the people of the United States by clarifying the laws pertaining to hospital treatment, medical care, domiciliary care, and related services, and for other purposes. Referred to the Committee on World War Veterans' Legislation.

Comment: Provides for additional immediate construction of hospitals of bed capacity of 57,000. Also the building of the necessary associated branches of medical services to make the Veterans Administration a complete medical center within itself which will have its own research laboratories, medical flying corps for quick transportation of serums, equipment, and patients from one specialty to another. It will also provide the Veterans Administration with fact-finding proving centers to determine the merits of healing arts which heretofore have not been considered.

H.R. 5686 by Mr. Forand of Rhode Island, March 6. A Bill to provide for the public welfare through grants to the States for welfare services and assistance to needy individuals. Referred to the Committee on Ways and Means.

Comment: This bill would amend generally the Social Security Act and would be cited as the "Public Welfare Act of 1946." It incorporates the recommendations of the American Public Welfare Association. It provides (1) Subsidies from the Federal Government to assist the states in meeting need, whatever its cause; (2) it would assist the states to provide on a more nearly adequate basis for the actual requirements of needy individuals and families; (3) it assists the states to meet more adequately the needs of those who require medical care by authorizing direct payment to doctors, institutions and other agencies furnishing such care to the needy, and by permitting those adults who require medical care voluntarily to reside in public as well as private institutions without loss of their cash assstaince; (4) it extends the area of Federal financial aid to services as well as assistance, recognizing that the needs of children and many of the needs of adults require something more than cash assistance; (5) the bill would require unified administration of Federally-aided welfare programs at all levels of government —local, state and federal.

H.R. 5715 by Mr. Stevenson of Wisconsin, March 8. A Bill to provide for establishment of a National Medical Research Foundation for the study of cancer and other diseases. Referred to Committee on Interstate and Foreign Commerce.

Comment: Provides for a governing board consisting of the Surgeon General of the U. S. Public Health Service, the president of the AMA and the president of the American Cancer Society. The Foundation is authorized and directed to initiate, conduct and support scientific research with respect to the cure of cancer, poliomyelitis, rheumatic fever, rheumatic heart disease, nephritis, arthritis, encephalitis, aplastic anemia, leukemia, hay fever, asthma, and arteriosclerosis.

ACTION ON BILLS

H.R. 4512, to provide for research relating to psychiatric disorders, was debated in the House, and was passed with a vote of 74 to 10 after certain amendments had been made. All references to grants-in-aid to states were eliminated. Dr. Fenton clarified the language so as to prevent its being construed as authorizing treatment by a person without medical knowledge. This clarification was very essential. Dr. Judd suggested that the members to the National Advisory Mental Health Council be selected by the Surgeon Genral from a panel submitted by appropriate national organizations and the Association of Deans of Medical Colleges. The amendment as finally adopted reads—"three of the appointed members shall be selected from a panel of six, such authorities to be submitted to the Surgeon General by the deans of the approved medical colleges and schools in the United States." The bill now goes to the Senate.

SPECIAL BULLETIN

The hearings on the Wagner-Murray-Dingell bill (S. 1606) began April 2. Senator Murray presided and opened the meeting with the accompanying statement, after which he introduced Senator Wagner. The main part of the latter's address is also included in this bulletin. Others who appeared the first morning were Congressman Dingell and Senator Pepper.

Statement by Senator James E. Murray

We meet today to initiate public hearings on one of the most important and constructive legislative proposals to come before the Congress.

In past years, the Committee on Education and Labor has had occasion to consider many important measures dealing with various aspects of the nation's health. Seven years ago, in April, 1939, this Committee had referred to it the first comprehensive bill for a national health program, S. 1620, introduced on February 28, 1939, by the distinguished Senator from New York, Mr. Robert F. Wagner. Through a subcommittee, of which I had the honor to be chairman, we held extensive hearings, heard many witnesses, and received many statements on health conditions, needs and proposals.

Early in August, 1939, I made a Preliminary Report for the Committee (76th Congress, 1st Session, Report No. 1139) in which I summarized the results of the hearings on S. 1620. It was already late in the Congressional session, and there were some unresolved problems concerning the bill. Consequently, the Committee could only record its intention to report out an amended bill at the next session of Congress.

We were convinced at the end of 1939 that there were large unmet health needs in this country, that the Federal Government had an obligation to help meet those needs, and that this could and would be done.

Our intention to proceed with national health legislation early in 1940 was, however, frustrated by catastrophic events. The war in Europe was gathering momentum; and its threats to our national security were becoming clearer and clearer. As the clouds of war rolled over us, and finally engulfed us, comprehensive national health legislation had to be laid aside, to wait on the end of the war.

We did consider a limited program in 1940, the National Hospital Act of that year (S. 3230), introduced by Senators Wagner and George, providing Federal grants for the construction of some needed hospitals and for making limited grants toward their maintenance. After hearings on the bill, I reported it favorably from this Committee and it was passed by the Senate. Unfortunately, it failed to receive active attention in the House of Representatives.

Between 1941 and 1945, we have had many health measures before us, dealing with special problems. Other bills, containing health programs to be developed as parts of social security and related programs, were also pending before other committees of the Senate.

During the war years, our special Subcommittee on Wartime Health and Education did a magnificent job, studying and reporting on special problems and needs precipitated by the war. The Nation owes a real debt of gratitude to Senator Pepper, Chairman of that Subcommittee, and to the other members, Senators Thomas, Tunnell, LaFollotte and Wherry, for the comprehensive, thorough and penetrating work they have done. More recently, Senator Pepper and other members of the Committee on Education and Labor have also carried forward the work on health problems through our legislative Subcommittee on Public Health. The hearings held by the Subcommittee, and the reports prepared by Senator Pepper and his able Committee, will long continue to be invaluable sources of information and helpful guides for constructive health planning.

The public health laws of the United States were completely recodified in 1944, making somewhat more ample provisions for various public health programs (Public Law 410, Approved July 1, 1944).

Last year, this Committee had before it a bill proposing the first step toward a comprehensive national health program—Federal grants to survey hospitals and public health centers, to plan the construction of additional facilities, and to assist in such construction. That bill, S. 191, introduced January 10, 1945, by Senators Hill and Burton, was considered in public hearings, extensively revised, reported favorably by this Committee on October 30, 1945, and passed by the Senate December 11, 1945. It is now being considered by the Committee on Interstate and Foreign Commerce in the House.

Thus, it is clear that extensive studies and deliberations have been devoted to national health legislation over a period of seven years, many important bills have been considered, and some have been—or are in the process of being—enacted. While this is true, it is also true that most of the main health problems, the basic problems, that clamored for attention and action in 1939 are still unsolved. The principal unmet health needs of the last years before the war are still unmet, and the war has made some of them more serious and more acute.

The bill which is now before us transcends all of the earlier bills in importance. It represents a logical culmination of the vast amount of work already done in planning for the nation's health. It offers a constructive program toward assuring to all the population the medical care that we all look forward to having in the future.

On November 19, President Truman submitted to the Congress his recommendation for a "comprehensive and modern health program for the Nation, consisting of five major parts, each of which contributes to all the others." The five parts are:

1. Federal grants for construction of hospitals and related facilities;
2. Expansion of public health, maternal and child health services;
3. Federal grants for medical education and research;
4. Establishment of a national social-insurance system for the prepayment of medical costs; and
5. Expansion of our present social-insurance system to furnish protection against loss of wages from sickness and disability.

On the same day, the National Health Bill, S. 1606, was introduced in the Senate by Senator Wagner and myself, and in the House of Representatives by Representative John D. Dingell, of Michigan This bill provides for three of the five points in the President's program, namely: expansion of public health, maternal and child health services; more adequate funds for medical education and research; and a system of prepaid medical costs. Federal aid for the construction of hospitals and related facilities, the first of the President's five points, had already been provided for in the Hospital Survey and Construction Act which passed the Senate in December, 1945, and is now before the House. Insurance benefits to compensate for loss of wages during periods of sickness and disability, the President's fifth point, is provided for in the general social security bill (S. 1050; H.R. 3293) now pending before the Finance Committee of the Senate and the Ways and Means Committee of the House.

Intense public interest in the National Health Bill, which we are considering today, is evidenced by the hundreds of letters and telegrams that have been coming to this Committee from organizations and individuals who ask for an opportunity to testify on this legislation. If all who have already requested an opportunity to present oral testimony were to be heard, the Committee's hearings would have to extend for many months.

Thus far, hearings have been scheduled only for the month of April. The witnesses who will appear during the course of these hearings are representatives of national organizations, both for and against the bill, and spokesmen of the Federal agencies most directly concerned with the health program.

The schedule of the first week's hearings has already been made public. Next, we shall hear from various national organizations — religious groups, women's organizations, business and professional groups, consumers, and organized labor. Then, we shall start to receive testimony from the medical and health professions—doctors, dentists, hospitals, nurses, public health officers, and voluntary insurance organizations. During the final part of the presently-scheduled hearings, we shall hear from farm and veteran organizations.

Those who have requested time for oral testimony and who have not been scheduled, have been asked to submit written statements which can be printed in the record of the hearings. Arrangements have already been made with the Legislative Reference Service of the Library of Congress to have a research analyst prepare a weekly summary of all testimony and written statements. These summaries will be available to the public and will also facilitate Committee consideration of the views and recommendations presented to us.

I have appointed a Subcommittee to weigh the requests of all who may still think they should have an opportunity to present oral testimony. If the Subcommittee so recommends, I am sure the Committee will extend the hearings in order to provide time for additional witnesses. This subcommittee is composed of the Senator from Florida, Mr. Pepper, the Senator from Arkansas, Mr. Fulbright, the Senator from New Jersey, Mr. Smith, the senator from Oregan, Mr. Morse, and myself.

During recent years there has been extensive, and sometimes intensive, controversy over the question of whether we should have compulsory health insurance. These hearings will provide a new occasion—perhaps the best opportunity yet afforded—for all the issues in this controversy to be thoroughly examined. These hearings offer a challenge to all who participate, a challenge that can be successfully met only by a sincere determination on the part of everyone to try to understand the other man's point of view and to examine the problems in the light of facts rather than through slogans or prejudices. I am confident that when the hearings are conducted there will be less conflict and more agreement on what the Federal Government should do so that the full benefits of modern medicine can be brought within the reach of all our people.

Among the unsung heroes and heroines of World War II, are the members of the medical professions. On the battlefront, our doctors, dentists, nurses and corpsmen wrought miracles of medical care. On the homefront, those who remained to serve the civilian population performed patiently and perseveringly under a workload of unprecedented proportions.

Now that the war is over, another task of heroic proportions confronts the medical professions — to bring the full gamut of preventive, diagnostic and therapeutic health services within reach of the fifteen or more million men and women who served in the armed forces, the civilians who backed them up on the homefront and the families of both.

It is my hope that the work of this Committee will result in a national health program that will open for the public a new chapter in man's age-old quest for health and vigor, and will give the professions and the hospitals a new and larger opportunity to serve the public in their beneficient work.

At this point, I should like to insert in the record of the hearings the following documents:

1. President Truman's Health Message of November 19, 1945.
2. The National Health Bill, S. 1606.
3. Copies of correspondence between President Truman and myself relative to certain amendments proposed bv Mr. William Green, President of the American Federation of Labor.
4. Reports on the National Health Bill from a number of Federal agencies, including the Bureau of the Budget, the Federal Security Administrator and the Secretary of Commerce.

Statement of Senator Robert F. Wagner

I am very glad to appear before the Committee today in support of the National Health Bill which I have introduced with Senator Murray and Representative Dingell. The bill is designed to establish a national health program along the lines set forth by the President in his message on this subject.

In my opinion this bill is one of the most important bills ever considered by this Committee. It is an important bill because without good health the individual—his family—and the nation cannot prosper. Good health is a matter of vital interest to every man, woman and child in the Nation.

The National Health Bill is an essential part of a broad program to improve our domestic security.

There is no doubt of the need for improving the health of our Nation. And there is no doubt that the American people are in favor of improving their health through health insurance.

Every year thousands of mothers and children are dying needlessly from preventable causes. Every year thousands of men and women in the prime of life are dying needlessly from tuberculosis, pneumonia, influenza and other preventable diseases.

Each year we lose more persons from preventable and premature deaths than we lost on the battlefields during all of World War II.

We cannot allow these preventable deaths to occur year after year. Every year of delay in establishing a national health program means the loss of thousands of lives. Every year of delay means needless suffering to thousands of people who do not now obtain adequate medical care. In the past we have taken some small piece-meal steps to try to deal with the problem. Now what we must do is tackle the job with everything we have.

The most important way now to accomplish that purpose is by the enactment of a national health insurance plan supplemented by other improvements in existing health legislation.

Some organized medical groups have criticized a national health insurance program on the ground that it involves "regimentation of doctors and patients," "lowered standards," "political medicine," and "socialized medicine," and so on. There is absolutely no foundation to these charges. Health insurance is not socialized medicine; it is not State medicine. These terms have been used by opponents of the bill to confuse the issue.

Health insurance is simply a method of assuring a person ready access to the medical care that he or she needs by eliminating the financial barrier between the patient and doctor or hospital. Under the bill patients are guaranteed free choice of doctors, doctors are guaranteed the right to accept or reject patients, and hospitals are guaranteed freedom to manage their affairs. Specific provision is included in the bill for hearings and appeals on any issues which may arise between doctors, hospitals, and covered persons. Specific provision is made for the judicial review of any disputed issues arising under the plan. It is clear, therefore, that the bill does not involve regimentation of doctors, hospitals, or patients. Neither do I believe that the doctors of this country will lower the standards of medical care simply because they are guaranteed payment for their services.

Those of us who have sponsored social legislation have faced similar unfounded objections against many proposals for social betterment. But we have lived to see these new programs eventually accepted as part of our basic system of American Freedom and democracy even by the very groups who first opposed them. I remember when old-age assistance and free public employment offices were opposed as being socialistic. Similar arguments were advanced against income tax legislation.

Over 35 years ago in the New York legislature I fought for workmen's accident compensation and most of the highly emotional arguments which are being made against health insurance now were made against workmen's compensation then. Employers' organizations, insurance companies, doctors—all are now in favor of the fundamental principle embodied in workmen's compensation laws. All these laws now include medical benefits, which is health insurance for industrial accidents and disease. The time has come for us to extend the principle of health insurance to cover non-industrial accidents and diseases as well.

The fears and doubts expressed about workmen's compensation, old-age insurance, public employment offices and other measures for social security have proved to be without foundation. I am convinced that the American Medical Association itself will be able to say about a national health insurance program, after it is in operation, that many of its present apprehensions and misgivings were groundless.

Under the bill each person is guaranteed freedom to choose his own family doctor from among all physicians or groups of physicians in the community who have voluntarily agreed to go into the system. Each doctor or group of doctors is free to go in or stay out of the system. Doctors who participate are free to accept or reject patients who may wish to select them as their family doctor. Patients and doctors may change the arrangements after they have been made if they become dissatisfied.

I want to quote the exact language from page 45 of the bill, lines two to eighteen to prove this to you and to show you that many of the charges that are made against the bill are false. Here is what the bill actually provides: ***

Every effort also has been made in the bill to protect the professional position of dentists, nurses, and nursing organizations. Hospitals are guaranteed protection in section 206 (b) against interference in the management of their own affairs. The basic policy has been to provide medical and related services through arrangements that are worked out so that they will be satisfactory to the public and to those who furnish the services. Mutual agreement reached through negotiations and contracts, are specified in section 203 (c) of the bill as the method to be used, and that is the democratic way of doing things.

The Surgeon General is authorized to negotiate cooperative working arrangements with Federal, State, or local governmental agencies, and with private groups or individuals, to provide the benefits by utilizing their services and facilities on payment of fair compensation. This will assure local administration and full utilization of all existing facilities and personnel.

The bill provides that the health benefits may be furnished to non-covered persons such as needy persons receiving public assistance, if appropriate arrangements are made to pay on their behalf the cost of services furnished to them.

All qualified hospitals, all qualified medical groups or organizations, will be able to participate in the program as organizations furnishing services to the insured persons who choose them; they will receive fair payments for the services they furnish under the bill; and they will have enlarged opportunities to be service agencies for particular groups or for their communities. This applies to service organizations created by trade unions, consumer groups, employers, nonprofit community groups, churches, fraternal associations, groups of doctors or individual doctors, medical societies, or many other kinds of sponsors, or groups of sponsors. The bill not only provides for utilizing existing service organizations but it also encourages the creation of new ones.

The Blue Cross or similar hospital-insurance plans will be able to continue to act as representative of the participating hospitals and the community groups that own or manage the hospitals. They will have large opportunities to be important public organizations that facilitate the administration of vital parts of the insurance system.

Medical service groups—private clinics, salaried staffs of hospitals, group-service plans such as the Kaiser or similar plans—furnishing service under the system would be as free as they are today to select their own staffs and their own methods of paying physicians and others on their staffs, irrespective of the method of payment which prevailed among the individually practicing physicians or dentists of the local area.

How would the cost of the health insurance benefits in title II of this bill be financed?

There is already pending before the Congress legislation to finance the cost of health insurance. On May 24, 1945, I introduced with Senator Murray and Representative Dingell a comprehensive social security bill (S. 1050 and H.R. 3293) providing for social insurance contributions for all social insurance programs. This bill was drafted on the assumption that 3 percent of payrolls (up to $3,600 per year) would be allocated for health insurance of which one-half would be paid by employers and the other half by employees. In other words, 1½ per cent of payrolls would be contributed by employers and 1½ per cent by employees. The bill also provides that the additional cost above 3 per cent due to the gradual introduction of dental and home nursing services would be financed out of general revenues.

I have been asked many times why the premiums for health insurance were not included in the National Health bill, S. 1606, and I should like to clarify the situation for the record.

Under the Constitution all revenue bills must originate in the House of Representatives. This means that the House must consider and pass revenue legislation before the Senate. In order that the Health insurance legislation can be considered and passed by the Senate without waiting first for House action, it was necessary to consider the benefit and revenue provisions separately.

This separation of legislation between the revenue and benefit aspects is in keeping with previous practice. In both 1935 and 1937 legislation relating to railroad retirement was considered and enacted in this way.

Another reason for separating the benefit and revenue provisions is that under present arrangements in Congress different committees are concerned with these two matters. In the Senate, for instance, the Committee on Education and Labor handles all health legislation such as the Hospital Survey and Construction Bill, and the Public Health

Service Act. The many technical problems involved in revenue legislation are handled by the Senate Committee on Finance. Similarly, in the House of Representatives, health matters are handled by the House Committee on Interstate and Foreign Commerce but revenue matters are handled by the House Committee on Ways and Means. The financial details relating to the raising of the revenue for the plan raises many special problems which have a bearing on existing income taxes and pay roll contributions and should be considered in relation to these laws.

In terms of priority, it is essential that the benefits should be given consideration first. If the Congress thinks that health insurance benefits should be provided, then the method of financing can be worked out in terms of the scope and character of the medical care provided.

Statement of Representative John D. Dingell

I consider it a high honor to be associated with Senators Wagner and Murray in the sponsorship of such an important piece of legislation as the National Health Bill.

I believe it is customary for a witness to qualify himself before testifying on a bill. For many years I have been vitally interested in health legislation. As a member of the House Ways and Means Committee I helped to frame the public health and maternal and child health provisions in the original Social Security Act of 1935 and the amendments of 1939 which extended these provisions. I have followed closely the problems of medical benefits, occupational accidents and diseases under Federal and State workmen's accident compensation laws, both as a legislator and as a lifetime member of the International Typographical Union.

I want to confine my remarks today to the health insurance provision—title II of the bill—pending before this Committee because that is the part I presume you are going to hear most about during these hearings. That is the part against which the American Medical Association and its satelite organization—the National Physicians Committee—has been shooting its poison gas designed for the sole purpose of confusing and misleading the American people in order to preserve the monopoly which it exercises over the health of the American people.

The American Medical Association and the National Physicians Committee have attacked the health insurance provisions of the bill as "socialized medicine,“ "State medicine," and "political medicine." In my opinion those who peddle such nonsense are either woefully ignorant or inexcusably rigid in their stand pat attitude. I say this because anyone who studies the bill carefully, section by section, and line by line, will find that these charges are not true. For instance, section 205 (a) and (b) specifically provides for free choice of doctor by the patient and free choice by the doctor as to whether he wishes to enter into the system full-time, part-time, for ten patients, one patient, or not at all. Is this State medicine? Of course not.

Moreover, section 205 (g) of the bill specifically gives each doctor the right to choose the method by which he wishes to be paid for the services he renders. Is this political medicine? Of course not.

Section 205 (i) guarantees that payments to the doctors shall be adequate and shall vary with skill, experience and responsibility involved in furnishing service. Isn't this fair and proper? Of course it is.

These various sections as well as others in the bill are concrete answers to the many false charges that have been hurled against the bill.

I want to warn members of the Committee that the health insurance features of this bill have been the subject of more willful misrepresentation and misinformation than any other piece of legislation I have ever seen presented in all my 13 years in Congress.

The National Physicians Committee, formed specifically to preserve the A.M.A.'s tax-exempt status under the income tax laws, is spending hundreds of thousands of dollars to circulate false statements to try to defeat the health insurance provisions of the bill. It is collecting money under the false pretext that contributions to it "should be deductible" from income taxes by individuals who contribute. As a member of the House Ways and Means Committee responsible for drafting our tax laws, I believe that the National Physicians Commitee's statement to this effect is deliberately misleading and any such deduction is a violation of existing law which should be investigated by the Treasury Department.

The A.M.A. and the National Physicians Committee have the right to oppose this bill or any bill, to make its views known, and to spend as much money as they want to try to defeat this bill. But it should be clear that the American Medical Association in the field of medical economics does not come into the court of public opinion with clean hands. The American Medical Association's attempt to kill voluntary health insurance plans was finally stopped by the U. S. Supreme Court only after the A.M.A. was convicted of engaging in illegal activities in restraint of trade under the Sherman Anti-Trust law.

The false information which the A.M.A. circulated against the British health insurance system has been repudiated by the Secretary of the British Medical Association who said that the A.M.A. pamphlet on "Health Insurance in England" contains only a succession of distorted and confused facts and a partisan selection of opinions. *** Almost every page of the pamphlet provides matter for criticism on the score of inaccuracy or unfair presentation."

I predict that members of this Committee like members in the House will be bombarded with similar false propaganda against the bill.

Numerous public opinion polls taken during the past eight years have shown that the American people are in favor of health insurance. I would like to include in the record a summary of the most important polls taken on this subject.

A recent poll taken by Governor Dewey's State Commission on Medical Care showed that 86 per cent of the people said "yes" to the question: "Do you think everybody who lives in New York State should have insurance which pays doctor and hospital bills?" Fifty-two per cent voted for a government plan as distinguished from a voluntary one.

A poll taken in April, 1943, by the National Opinion Research Center showed that 85 per cent approved the principle of health insurance.

I also want to quote from a recent statement by the President of Opinion Research Corporation summarizing two public opinion polls which this organization took for the National Physicians Commitee. Here is what these polls showed:

"First of all, the evidence is irrefutable that the public strongly desires some easier way of paying for medical care. *** The public is overwhelmingly optimistic that something could be done to ease the financial strain of medical expenses: 77% say 'Yes, something could be done to make it easier for people to pay for doctor and hospital care.' Furthermore, this optimism is gaining—8% more people today than in 1943 say that something might be done to ease this burden. *** We find that more than half are willing to admit that they have at some time experienced hardship in meeting medical bills and 40% of the people say they are familiar with cases where others have foregone treatment because of financial stringencies.

"Last year we reported a strong sentiment for prepayment as a means of easing the financial burden of medical care. The surveys indicate that the market for prepaid medical care is broad. We find an overwhelmingly majority of the people (64%) saying they personally prefer to pay-in-advance."

What is the answer that the American Medical Association has given to the tremendous demand for health insurance that has been steadily growing for over 15 years?

Up until very recently the American Medical Association opposed even voluntary health insurance. Just six weeks ago Dr. Fishbein published an article in his propaganda Journal in which he praised and defended "the delaying tactics that have been a feature of the policies adopted by the House of Delegates (of the American Medical Association) since 1932."

Mr. Chairman, I consider that statement a callous and inhuman admission. Each year while thousands of persons are suffering and dying from preventable diseases the American Medical Association rejoices in its "delaying tactics."

But finally last year the American Medical Association had to come out flatfooted for voluntary insurance. It finally had to be for something constructive. One of the types of voluntary insurance it now endorses is the insurance sold by private companies. The administrative costs for this kind of insurance now average about 45 per cent of the premiums. I repeat, the administrative costs for this kind of insurance now average about 45 per cent of the premiums. Just think of it! Forty-five cents out of every dollar of premiums collected never come back to the beneficiary or his family in health benefits. That is not the extreme, some individual companies have administrative costs of 60, 70 or 80 per cent of premiums. This is the tribute which an employee must now pay if he wishes to enjoy the doubtful privilege of voluntarily buying private health insurance.

Irrespective of whether the individual purchases his protection from a private insurance company or through a plan controlled by a State or county medical society, he rarely gets complete medical care. Existing contracts have all the usual ifs, ands, and buts in them. The contract tells you when, where, and how you must get sick in order to be eligible for the contract benefit. If you get sick when you only need a doctor at home or at his office, such medical care isn't covered by the contract. You have to be sick enough to go to hospital. There are innumerable exclusions, limitations, deductions, exemptions, of the kind you find in the small print in many insurance policies.

Let me illustrate from the voluntary plan we have in my own State of Michigan.

Under the Michigan medical service plan which is run by the Michigan Medical Society, an employee, his wife, and children pay a flat premium of $2.25 a month or $27 a year. A flat premium is unrelated to any ability to pay. For a person earning $100 a month this is equivalent of 2¼ per cent of his wages. For the same protection a $300 per month man pays only three-fourths of one per cent of his wages.

For this payment the family can receive medical care but—only while in a hospital. The plan, therefore, violates a cardinal principle of any good medical care plan, namely to prevent sickness. Only after you are sick enough to go to a hospital does the voluntary plan afford a person protection. Since more than one-half of all expenditures for medical care are made for non-hospitalized illnesses this means that on the average, families must still pay 100 per cent more out of their own pockets for comprehensive medical care.

The Michigan plan has the additional limitation that the individual physician may make unlimited additional charges—and does—to individuals with incomes over $2,000 and to families with incomes over $2,500 a year.

In other words, as an example of what a voluntary plan can do, the Michigan plan offers very little security, if any at all, to the sick person. He does not get complete protection. He never knows ahead of time what complete protection will cost him. He must still pay a large part of his medical care costs when he gets sick. He must still worry about his medical bills.

Is compulsory health insurance such a radical idea as the A.M.A. and the N.P.C. say it is?

If these charges are true how is it that such eminent business men as Gerard Swope of General Electric Company, David Sarnoff of RCA, and a number of other businessmen, bankers, publishers and individual doctors and dentists have endorsed compulsory health insurance as "a thoroughly American Plan, consistent with our tradition of using government to aid the people in doing things for themselves."

The principle of compulsory health insurance is no longer a partisan issue. President Truman has endorsed the idea clearly and unequivocally in his special message to the Congress on a national health program.

I should also like to quote another endorsement of compulsory health insurance.

"*** How many fair-minded employers would now give up industrial accident insurance? The number would be infinitesimal, and so it would be with health insurance once it were firmly established.***

"*** The issue has always been — shall it be compulsory as is workmen's compensation insurance and unemployment insurance, or shall it be entirely voluntary." The voluntary approach has obviously not struck at the heart of our problem.***

"In urging — a prepaid health insurance program, I have advocated that participation in the plan be made compulsory. The compulsion applies, however, only to the contributions that are made by the employer and the employee. It does not compel anyone to receive any medical care. It does not compel any doctor to treat any patient. It merely compels those who are entitled to medical care to make contributions to the fund for that purpose. It is in no sense different from workmen's compensation insurance which requires employers to provide medical care for those in their employ who are insured at their work. The worker is not compelled to accept the service but it is available to him if he desires it."

The man who said that was Governor Earl Warren of California — a Republican. I congratulate Governor Warren on his outstanding political insight. He knows that American people want health insurance. He knows that the bugaboo of compulsory health insurance will not scare anybody; that voluntary insurance can't solve the problem. He knows that it is good sense to advocate compulsory health insurance.

One charge made by the American Medical Association against the bill is that the Advisory Council is merely "advisory" to the Surgeon General. In other words, the American Medical Association implies that if you put a majority of doctors in control of the Council and make the Council's action binding on the Surgeon General—why, then they would be in favor of a national health insurance plan. I want to be frank about this. As one sponsor of this bill I would fight with all the energy in me to prevent passage of a health insurance bill that would put control of the fund under the American Medical Association or any other private organization, however reputable it may be.

The charge that the Advisory Council in the bill is just a puppet Council is ridiculous. Let me show you. Here is what the bill provides:

The Surgeon General is directed to establish a National Advisory Policy Council with which he is required to consult on all important questions of policy and administration. Section 204 (a) provides that members of this Advisory Council would be appointed from panels of names submitted by professional and other organizations concerned with medical services, education, hospitals, etc. The Advisory Council must also include representatives of the public.

Section 203 (1) provides that the Surgeon General is required to make a full report to the Congress each year on the administration of the program. Such report must include a record of the consultations with the Advisory Council, recommendations of the council, and many comments thereon. Such a report assures that all relevant facts, opinions, recommendations, and actions of the Surgeon General and the Advisory Council will be public information and that the Congress has full information upon which to revise or amend the law.

To assure that the Advisory Council will and can meet on its own motion, section 204 (b) provides that the council shall meet not less frequently than twice a year and whenever at least four members request a meeting. The bill also provides that the council itself and each of its members shall be provided by the Surgeon General with secretarial, clerical, or other assistants. Finally, the council itself may establish special advisory, technical, regional, or local committees or commissions, whose membership may include members of the Advisory Council or other persons or both, to advise upon general or special questions, professional and technical subjects, questions concerning administration, problems affecting regions or localities, and related matters.

Throughout the bill, there are specific provisions requiring the Surgeon General to consult with the National Advisory Council on particular matters. Thus, section 205 (c) requires that in determining what are specialist or consultant services (for the purpose of higher rates of remuneration to persons rendering such services), the Surgeon General must establish general standards only after consultation with the Advisory Council. Similarly, in connection with including any hospital on the list of participating hospitals, section 206 (b) requires that the Surgeon General make his finding of facts and decisions on the status of any hospital in accordance with general standards established only after consultation with the Advisory Council. In placing any limitations on benefits under section 210 the Surgeon General must also first consult the Advisory Council.

These provisions assure that there will not be any dictatorship or regimentation under the bill as the National Physicians Committee falsely claims.

CONCLUSION

I do not wish to take up more of the Committee's time enumerating the specific provisions of the bill which protect the doctor, the dentists, the nurse, the hospital, the individual patient and his family, and the Surgeon General. But if this Committee can strengthen any of these provisions it will perform a great service. Passage of this bill will be a great step forward in improving the health and adding to the happiness of the American people.

Statement of Senator Claude Pepper

ECONOMIC BURDEN OF ILLNESS

Our latest report states that the burden of sickness and medical care falls heavily and unevenly on people—hitting some families so hard they are driven to financial ruin and the haunting misery which accompanies the vicious circle of poverty and ill health.

Sickness is the greatest single cause of families going into debt. Both national and state-wide surveys conducted by small-loan companies themselves show this clearly. Indeed, the results of their various studies are remarkably consistent. Thus, according to the American Association of Small Loan Companies, medical, dental, and hospital bills are the greatest single cause of people borrowing from small loan companies. This conclusion is based on the record of over 300 small loan companies. Further, the greatest single cause of bond redemptions, according to studies of both farm and non-farm people, is also sickness and medical costs. ***

Sickness and medical costs are also the greatest single cause of people having to seek charity. Studies of public assistance rolls show this to be true, and we have conducted an interesting analysis of this point which confirms these larger surveys. Each year, as many of you know, the New York

Times conducts a great humanitarian campaign for the "Hundred Neediest Cases" in New York City. Case histories of these needy people are published, summarizing the major facts about their cases. *** 85 per cent of the families were obviously indigent either as a result of sickness or of medical costs, or a combination of both!

Mr. Chairman, sickness is a great enough tragedy in itself. Is it not a tragic reflection on our Nation that we allow this natural tragedy to be further exacerbated by financial worries and catastrophies, as well as financial barriers to the receipt of needed medical care?

Do such barriers exist, Mr. Chairman? They most certainly do. In my part of the country this fact is so much in the experience of most families that it hardly needs proof. As I have said once before, most people in Florida no more expect hospital care during a serious illness than they do a trip to Europe in the summertime. Government studies have shown that less than 7 per cent of even the lowest income group among rural people (those making under $500 a year per family) receive any free medical care in the course of a year. Yet can it be said that farmers with mouths to feed, clothes to buy, and insurance to pay can afford the $100 a year or so it costs on the average to purchase even minimum adequate medical care under our present system? They cannot and they do not. They and their wives and children go without instead.

What is the way out? The way out is prepayment, budgeting, the time-tested, tried and true American way—insurance. Only through such a mechanism can these burdens be spaced out in time and over a large enough number of people to lighten them properly.

For over a hundred years the American people have been trying to insure themselves against the burden of medical costs, but they have still not reached their goal.

The voluntary prepayment plans have made progress since the first one began about a hundred years ago, but they still cover a comparatively small per cent of the population and take care of only a small per cent of medical services. It is also becoming clear from experience that reduced costs result from wider coverage, as in any insurance system.

At present, less than 4 per cent of the population receives complete prepaid medical care under voluntary health insurance plans. Seventy-five per cent of the population receives no prepaid care at all, even the most meager and partial. By "complete medical care" I mean only relatively comprehensive hospital services, and doctor's service in hospital, home, and office. I do not even include dental care, home nursing, and drugs. Most of the 25 per cent with some prepaid medical care are insured only against hospital bills, or surgeons' bills, or wage loss during sickness.

Most of the people covered belong to either Blue Cross or commercial insurance plans. The Blue Cross plans have grown very fast in the last ten years. The latest figures show their membership to be around 20 million people. Whether they will continue to grow rapidly in the next few years or not, I am not prepared to say. Some feel that the wartime period gave the Blue Cross abnormally favorable opportunities for growth. I have been a proponent of hospitalization insurance for a long time, so I am glad that they have grown. However, we should not think that they provide for more than they do. They cover only the hospital bill during ordinary illness, usually for 21 to 30 days, with partial payment for an additional 60 days, at a cost of about $24 per family a year. Since in any year one out of ten persons is hospitalized for the kind of illness they cover, this is important. But such hospital bills take only 13 cents (about a seventh) of the average medical dollar. The plans do not cover doctors' bills, which take about 40 cents of the average medical dollar (or three times as much), nor do they cover dental care, preventive medicine, nursing, or drugs.

Early, high-quality doctor care, regular check-ups, and the like, are perhaps the most vital links in the whole medical care chain. Cancer, tuberculosis, nephritis, hernia, syphilis, arthritis, mental disease, and others of our major killing or disabling diseases, can be controlled only by early general practitioner or specialist care. Any prepayment scheme that does not assure their receipt has serious failings.

*** (The Senator then discusses commercial plans, medical society plans and group practice plans). ***

We have therefore concluded that voluntary, or private, health insurance has serious shortcomings, some of them inherent in the method itself. A few are as follows:

1. Millions of people are not eligible for any plan.

2. The plans usually meet only a small part of the health needs.

3. Most people cannot afford to join.

4. Others feel they do not need medical insurance; or they drop out after a year or so because they "didn't use the plan last year, and don't think it worthwhile to stay in." High turnover of membership is a constant problem and raises the cost.

5. People who are sick, or expect to get sick, tend to join the plans most. Accordingly, voluntary plans either have a tendency toward "adverse selection of risk," or they adopt such rigid eligibility requirements that they exclude the very people who need care most.

6. There is much overlapping and duplication, as well as geographical and social gap-leaving.

7. There is a tendency to high promotional and administrative costs.

8. The plans are not well suited to the needs of our increasingly migrant population.

9. With very few exceptions, they have not provided consumer representation on their policy-making boards.

*** (He continues with a philosophy of national health insurance, and adds several public opinion polls on the subject). ***

To summarize this part of my testimony, I would like to quote from the conclusion of the Subcommittee's health insurance report:

"To cover everyone, the adverse as well as the good risks, the young and the old, the sick and the well, the rural and the city dwellers, the low-and-the-high-income groups, the poor and the rich areas, all this takes a mechanism as representative and all-inclusive as the Federal Government. Some people will not protect themselves voluntarily even if they are able to do so; others will be able to afford to do so only under a national plan. A national solution by spreading the risk among the whole population, and by equalizing costs between income groups and areas, will enable all the people to protect themselves at a cost they can afford to pay.

"The voluntary plans have served and are serving a valuable purpose, even though they do not provide any final answer to the problem of prepaid medical care for all the people. They have developed useful data on the prepayment of medical costs, and have educated large sections of the public on the value of medical care insurance. Furthermore, they have trained sizable numbers of medical and administrative personnel in the techniques of prepaid medical care. There is no reason why such plans should not continue to perform useful functions within the framework of a national health insurance system.

"It is our considered opinion reached after months of careful study, that the only way complete care can be brought to all is through a national health program, built around a system of prepaid medical care. It must be financed by required contributions to the social-security fund and by payments from general tax revenues. Such a program will satisfy all the requirements set forth above, and will make possible the achievement in the foreseeable future of our goal of high quality health care for all.

"The cost will not be greater than that of our present inefficient and wasteful fee-for-service system. According to leading experts, the charge to the average family under a national health insurance program will actually be less than it pays now, partly because the employer and the Government will both contribute to the fund. It is noteworthy that the labor organizations, all of those members are wage earners, are among the staunchest supporters of national health insurance.

"Health insurance is often erroneously called 'socialized medicine' or 'state medicine.' As President Truman pointed out in his health message, such a system is one in which the doctors are employed by the Government. We do not advocate this. National health insurance, which we do advocate, is simply a logical extension of private group health insurance plans to cover all the people. It is a joint national endeavor. It will guarantee free choice of doctor or group of doctors and free choice of hospital by the patient, and free choice of patient by the doctor. Indeed, free choice will be extended, because current financial barriers to the actual exercise of free choice will be broken down.

"The concern of the Federal Government in this matter is clear. If only the national defense were involved, this would be reason enough for the adoption of a national health program. The costly lessons of the selective service rejections and of the armed forces medical discharges have made this apparent.

"Today America faces the challenge of world leadership. To a very large extent we bear the principal responsibility for the kind of world we are to live in. America can continue neither prosperous nor secure unless her people are healthy and full of strength. We owe it, therefore, to the Nation, and to every man, woman, and child in it, to open to every citizen the door to the marvels of modern medical care. Only thus can we make our full contribution to a free and happy world, unhindered by the heavy drag of sickness and ill health."

NEBRASKA SURGICAL PLAN
CASH RECEIPTS AND DISBURSEMENTS
March 31, 1946

Cash on hand March 1, 1946		$28,114.48
Receipts:		
From dues	$ 6,647.50	
From enrollment fees	483.00	
Taxes deducted from salaries	4.30	7,134.80
		$35,249.28
Disbursements:		
Administrative expense	911.10	
Claims paid	3,728.50	
Salary, Executive Director	150.00	
Secretary's fee	25.00	
Advertising	129.00	
Printing and stationery	234.20	
Attorney	40.00	
Refunds	279.25	
Bank charges (2)	1.00	
Home office travel and expense	50.00	
Taxes paid, filing fee	30.00	
Medical adviser	30.00	5,608.05
Cash on hand, March, 31, 1946		$29,641.23
Bank Balance, March 31, 1946		$29,641.23

NEBRASKA SURGICAL PLAN
BALANCE SHEET
March 31, 1946

Assets:			
Cash in Bank		$29,641.23	
Premiums in process of collection			
U. S. Bonds (cost plus accrued interest)		10,035.55	
Prepaid insurance premiums		102.92	39,779.70
Liabilities:			
Accounts payable, Blue Cross		$ 1,041.00	
Accounts payable, monthly invoices		253.10	
Accrued payroll taxes		17.40	
Claims payable		900.00	
Accrued audit expense		75.00	
Unearned premiums		10,669.96	
		$12,956.46	
Subscribers 4% Surplus Notes	$19,450.00		
Net Income to date	7,373.24		
		$26,823.24	
			$39,779.70

NEBRASKA SURGICAL PLAN
INCOME AND EXPENSE
March 31, 1946

	March 1946	3 Months to Date
Income:		
From dues	$ 5,205.00	$13,365.50
From enrollement fees	483.00	1,173.00
	$ 5,688.00	$14,538.50
Expenses:		
Claims	3,328.50	7,023.00
Salary, Executive Director	150.00	450.00
Legal	40.00	120.00
Auditing	25.00	75.00
Advertising	71.70	270.68
Printing	99.45	421.40
Insurance	20.00	60.00
Administrative expense	1,041.00	2,673.10
Home office travel and expense	136.20	136.20
Professional fees	25.00	75.00
Collection expense	----	2.80
Taxes and licenses	31.50	34.50
Miscellaneous	1.00	1.00
Dues	----	3.75
Medical adviser	30.00	90.00
	$ 4,999.35	$11,436.43
Net Gain	$ 688.65	$ 3,102.07

MEMBERSHIP SUMMARY—MARCH, 1946

	Sub-scribers	De-pendents	Total
1. Membership, March 1, 1946	3,511	4,322	7,833
Additions	721	1,010	1,731
Cancellations	98	75	173
Net Gain	623	935	1,558
Membership, April 1, 1946	4,134	5,257	9,391
2. Number of groups now enrolled			312
3. Number of groups added during March			39

4. Members enrolled by salesmen:

M. W. Ashton (outstate)	195
W. V. Jones (Omaha, outstate)	229
B. R. Lohnes (Omaha, outstate)	75
G. S. Malone (outstate)	172
A. S. Taylor (Omaha)	22
Office	28
	721

MARCH ENROLLMENT BY COMMUNITIES

OMAHA—11 groups, 259 members: Bellevue Public Schools, Better Business Bureau, Carlisle Insulating Company, Commercial Warehousing Corporation, Domian Provision, Mutual Live Stock Commission, Omaha & Council Bluffs St. Ry. Co., Omaha Daily Journal Stockman, Pfeiffer Advertising Agency, Sacks Brothers, Union Rendering Company.

HOLDREGE—5 groups, 41 members: Friendship Extension

Club, Holdrege Board of Education, Ledlies, School District No. 39, Shaffer Cleaners.

WEST POINT—3 groups, 24 members: Dunn's Cafe, Hill Hatchery, W. H. Hasebroock Store.

SCOTTSBLUFF — 1 group. 22 members: Cheatum's Style Shop.

COLUMBUS—1 group, 5 members: Columbus Rendering Company.

pany.

SCRIBNER—1 group, 5 members: Scribner Rendering Company.

YORK—3 members.

LINCOLN—4 groups, 143 members: C. C. Kimball Company, Russell Stover's Candy Co., State Auditor's Office, U. S. Public Roads Administration.

FREMONT—4 groups, 53 members: Fremont Guide and Tribune, Fremont Rendering Company, Fremont Union Transfer, Webers Store.

GRAND ISLAND—3 groups, 60 members: Cheatum's Style Shop, Nebraska Consolidated Mills, Platte School.

FALLS CITY—3 groups, 27 members: Wittrock Dairy, Bohrer Brothers, Appleoff Appliance Company.

WILCOX—1 group, 19 members: Wilcox Community Group.

MULLEN—1 group, 26 members: Mullen Commercial Club.

HARRISBURG—1 group, 10 members: Wildcat Club.

NORTH PLATTE—14 members.

ALLIANCE—7 members.

NEBRASKA CITY—3 members.

DEATHS

Anderson, August Nils, Edgar. Born in Sweden in 1867. Arrived in the United States at the age of 2 years, when the family settled on a homestead near Bryant. He attended Hastings College, studied at Cotner, and later entered Rush Medical College, graduating in 1892. Following postgraduate work in Sweden and Germany he located in Belvidere, and later he moved to Lincoln to become associated with the State Hospital. He practiced in Lincoln for sometime, then moved to Stromsburg, Carlton, Rushton and Schickley. He died in the Tabitha Lutheran Home, Lincoln, March 3, 1946. There are no immediate survivors.

Skinner, Almiron O. Born in 1881. Graduated from Lincoln Medical College in 1907. Until three years ago he was connected with the feeble minded institute at Beatrice. In 1943 he joined the staff at the Lincoln State Hospital where he remained until shortly before his death on March 20, 1946.

TUBERCULOSIS TAKES 315,000 LIVES IN FRANCE DURING WAR YEARS

The Paris correspondent of The Journal of the American Medical Association reports in its March 23 issue that there were 315,000 deaths from tuberculosis in France during the war period, September, 1939, to May, 1945.

The correspondent, who derived his figures from the Bulletin of General Statistics of France, says:

Children up to 2 years of age were severely stricken. An increase of 21 per cent for adolescents from 15 to 19 and of 88.5 per cent for men from 25 to 29 has been observed. The author concludes that this increase among men is due to their greater reaction to the restrictions and the hardships of life during the war and the occupation.

Continuing, The Journal correspondent presents a comparative study of the tuberculosis mortality in the past two wars:

During the war of 1914-1918 an increase of the tuberculosis death rate was noted. The death rate rose from 215 per hundred thousand inhabitants in 1910 to 278 in 1918, an increase of 29.3 per cent. During the war of 1939-1945 and the occupation it attained 159 in 1941, the highest rate, as against 120 in 1936, which represents an increase of 32.5 per cent.

WOMAN'S AUXILIARY

The Woman's Auxiliary to the Omaha Douglas County Medical Society held a luncheon meeting at the Omaha Athletic Club on Tuesday, April 9. A board meeting preceded lunch, Mrs. John F. Nilsson, president, presiding. Dr. Francis L. Simonds gave an interesting talk on cancer and a business meeting followed lunch. Forty members were present.

The Woman's Auxiliary to the Tri-County Medical Society held a meeting at the home of Dr. and Mrs. Geo. De May, Grand Island, on March 26.

SOCIETIES

Secretaries of county and district societies are requested to send in the minutes of their meetings to The Editor, Mezzanine No. 3, Medical Arts Building, Omaha.

The Sixth Councillor District met at Wahoo Monday, April 8, dinner at 6:30. Dr. R. E. Harry presided. The following program was presented: "Malaria—Problem of the Care of the Returned Veteran", F. H. Tanner, M. D., Lincoln, Nebr.; "Falariasis—Relation to Public Health", Geo. A. Underwood, M. D., Lincoln, Nebr., Prepaid Medical Care Program; A. J. Offerman, M. D., Omaha, Nebr., Tribute to A. E. Stuart, M. D., of Cedar Bluffs, Nebr.

The Six County Medical Society met at the Hotel Waldorf, Norfolk, April 7. The committee in charge consisted of Drs. H. E. O. Salsburg and A. A. Bar. The following program was presented: Dr. Howard Hunt, Omaha, Nebraska, "Carcinoma Skin and Mucus Membranes"; Dr. Donald J. Wilson, Omaha, Nebraska, "Dermatology and General Practitioner".

The Tri-County Medical Society met March 26, at St. Francis Hospital, Grand Island. Program consisted on symposium on hypertension conducted by Drs. George Covey, Frank Tanner and J. Marshall Neeley all of Lincoln.

THE SCHOOL-CHILD'S BREAKFAST

Many a child is scolded for dullness when he should be treated for undernourishment. In hundreds of homes a "continental" breakfast of a roll and coffee is the rule. If, day after day, a child breaks the night's fast of twelve hours on this scant fare, small wonder that he is listless, nervous, or stupid at school. A happy solution to the problem is Pablum. Pablum furnishes protective factors especially needed by the school-child—especially calcium, iron and the vitamin B complex. The ease with which Pablum (or Pabena) can be prepared enlists the mother's cooperation in serving a nutritious breakfast. This palatable cereal requires no further cooking and can be prepared simply by adding milk or water of any desired temperature.

HUMAN INTEREST TALES

Communications bearing human appeal are solicited. They should be addressed to The Editor, Nebraska State Medical Journal, Mezzanine No. 3, Medical Arts Building, Omaha.

A new doctor at West Point is Dr. Bowen E. Taylor.

Dr. G. E. McMillan has become associated with Dr. W. E. Shike at Gering.

Dr. and Mrs. C. G. Amick have returned to Loup City after a vacation trip to the east.

Dr. Leo Anderson announces the removal of his office to 207 Medical Arts Bldg., Omaha.

Dr. and Mrs. J. A. Henske have returned to Omaha after a two months' vacation in Mexico.

Dr. John P. Gilligan announced the opening of his office in the Sharp Building in Lincoln.

Dr. and Mrs. Lucien Stark have returned to Norfolk after a month's vacation in California.

Dr. A. E. Stuart recently celebrated his 60th year of medical practice in the community of Cedar Bluffs.

Dr. K. C. McGrew of Orleans has closed his Stamford office. This leaves that community without a doctor.

Dr. A. E. Reeves, North Platte, attended an April meeting of the American College of Surgeons in Salt Lake City, Utah.

Drs. Louis D. McGuire and S. J. Carnazzo of Omaha attended a week's conference of the International College of Surgeons in Lima, Peru, in March.

Dr. G. E. Charlton who became superintendent of the Norfolk State Hospital on March 17, 1916, celebrated his 30th year in service to that institution this year.

Dr. W. Howard Heine, Fremont, was elected a national director of the Izaak Walton league of America, at a recent meeting of the organization in Chicago.

Dr. J. M. Shramek, Omaha, announced his retirement from active practice as of April 1. Dr. Henry L. Dworak recently returned from service will take over his practice at 612 Medical Arts Bldg.

Dr. M. H. Brodkey participated in the program of the South-West Allergy Forum April 8 and 9, at Houston, Texas, where a paper was presented on "The Advantages of Dose Titratine in the Treatment of Pollimosis."

We regret to record that Frances Long, daughter of the late Dr. F. A. Long, former editor of the Journal, died in California in March 1946. She had been connected with Carnegie Laboratories in Santa Barbara, Calif., where she was doing research work in botany.

TECHNICAL EXHIBITS
NEBRASKA MEDICAL ASSEMBLY

BOOTH NO. 1—General Electric X-ray Corp., Omaha:
Factual discussions with members of our Nebraska sales and service organization during the state meeting will aid you in your future apparatus planning. You may wish to know how G.E.'s Periodic Inspection and Adjustment Service can help keep your equipment at its maximum operating efficiency. Why not drop in and avail yourself of our wide experience and know-how?

BOOTH NO. 2—Holland-Rantos Company, Inc., New York:
You are cordially invited to visit the Holland-Rantos booth where on display will be the nationally known and universally used Koromex contraceptive specialties. Representatives of the company will be on hand to answer all questions. Samples of Nylmerate Jelly and Koromex Jelly will be available, as will copies of the Dickinson-Freret Chart.

BOOTH NO. 3—Mead Johnson & Company, Evansville, Ind.:
"Servamus Fidem" means We Are Keeping the Faith. Almost every physician thinks of Mead Johnson & Company as the maker of Dextri-Maltose, Pablum, Oleum Percomorphum, and other infant diet materials—including the new precooked oatmeal cereal, Pabena. But not all physicians are aware of the many helpful services this progressive company offers physicians. A visit to Booth No. 3 will be time well spent.

BOOTH NO. 4—C. V. Mosby Company, St. Louis, Missouri:
The C. V. Mosby Company extends a cordial invitation to visit Booth No. 4, where medical publications of timely interest will be displayed. Our representative, Mr. M. G. Yates, will be glad to discuss your book needs with you.

BOOTH NO. 5—Eli Lilly & Company, Indianapolis, Indiana:
The Lilly exhibit will feature an interesting demonstration in miniature on penicillin culture. Many Lilly products will be on display, and attending Lilly medical service representatives will be present to assist visiting physicians in every possible way.

BOOTH NO. 6—M. & R. Dietetic Laboratories, Inc., Columbus, Ohio:
M. & R. Dietetic Laboratories, Booth No. 6, will display Similac, a food for infants deprived either partially or entirely of breast milk. Mr. B. C. Palmer will appreciate the opportunity to discuss the merit and suggested application for both the normal and special feeding cases.

BOOTH NO. 7—Bilhuber Knoll Corp., Orange, New Jersey:
You will find the latest information and reports on the fine prescription chemicals of Bilhuber-Knoll Corp., in Booth No. 7. They include Bromural, Metrazol, Phyllicin, Theocalcin, Octin, and the useful analgesic, Dilaudid. These medicinal chemicals are often components of everyday prescriptions, prescribed alone or in combination with other drugs as the individual patient may require.

BOOTH NO. 8—A. S. Aloe Company, St. Louis, Missouri:
Our Mr. T. A. Berghoff will show a cross-section of instruments, equipment and supplies. Don't fail to see the line of government surplus specials of standard merchandise at remarkably low prices. In addition, Aloe will display Steeline treatment room equipment, the standard of the profession for many years, as well as stainless steel surgical instruments.

BOOTH NO. 9—Camel Cigarettes, New York:
Camel Cigarettes will exhibit a large detailed photograph showing the calculated absorption of nicotine from cigarette smoke in the human respiratory tract. Representatives will be on hand to discuss any phase of the physiological effects of smoking.

BOOTH NO. 10—Nutrition Research Laboratories, Chicago, Ill.:
Nutrition Research Laboratories will exhibit Ertron in both oral and parenteral forms, Infron Pediatric and Bezon. Literature pertaining to all three products will be available at our booth and members of the Professional Service Staff will be available at all times to welcome members and guests of the society.

BOOTH NO. 11—White Laboratories, Inc., Newark, N. J.:
White Laboratories, Inc., present information regarding White's Sulfathiazole Gum, White's Otomide,—and a NEW specialty, White's Mol-Iron Tablets, a new and definite advance in the treatment of iron deficiency anemias. White's ethically promoted vitamin specialties are also featured. You will find a very cordial welcome by White's Medical Service Representatives in charge of the exhibit.

BOOTH NO. 12—The Smith-Dorsey Company, Lincoln, Nebr.:
The Smith-Dorsey exhibit will feature their specialties in the hormone, vitamin and anemia fields. New products such as Al-Si-Cal prescription powder, Cal-Vatine Tablets and Estrogenic hormones in persic oil will be explained. Their representatives will be happy to discuss the efficacy of these products with physicians attending this meeting.

BOOTH NO. 13—Gerber Products Company, Fremont, Mich.:
Gerber's Professional Service Representatives deeply appreciate the opportunity to show Gerber's Baby Foods which are specially prepared for Americas most important people, "The Physicians Youngest Clientele." Ready to serve baby cereals, strained foods, and chopped junior foods, all exceptionally rich in vitamins and minerals, will be featured professionally.

BOOTH NO. 14—Philip Morris & Co., Ltd., Inc., New York:
Philip Morris & Company will demonstrate the method by which it was found that Philip Morris Cigarettes, in which diethylene glycol is used as the hygroscopic agent, are less irritating than other cigarettes. Their representative will be happy to discuss researches on this subject, and problems on the physiological effects of smoking.

BOOTH NO. 15—J. B. Lippincott Company, Philadelphia, Pa.:
J. B. Lippincott Company, Philadelphia, presents a complete list of Lippincott Selected Professional Books. New books include Derbes and Englehardt on Hay Fever; Guthrie's History of Medicine, Scherf and Boyd's Electrocardiography, Bancroft and Murray's Surgical Treatment of the Motor-Skeletal System, Burket's Oral Medicine. Advance information on other new books and new editions in preparation.

BOOTHS NO. 16 & 17—Sharp & Dohme, Inc., Philadelphia, Pa.:
Sharp & Dohme will have their display at booths 16 and 17 featuring Tyrothricin Concentrate for Human Use, 'Lyovac' Normal Human Plasma, 'Sulfathalidine,' 'Sulfasuxidine,' and

(Continued on p. xxxvi)

ROSTER OF NEBRASKA PHYSICIANS IN MILITARY SERVICE

As of April 15, 1946

ADAMS COUNTY
Shaw, W. L., Hastings
Uridil, C. F., Hastings

BOONE COUNTY
Higgins, J. P., Albion

BOX BUTTE COUNTY
Morgan, R. J., Alliance
Sorensen, C. N., Alliance

BUFFALO COUNTY
Albertson, L. C., Kearney
Dickinson, L. E., Ravenna
Hayes, C. B., Kearney
Wilcox, M. B., Kearney

CASS COUNTY
Anderson, R. R., Nehawka

CHEYENNE COUNTY
Bush, Stuart K.

CUMING COUNTY
Krause, Richard A., West Point
Robbins, H. M., West Point
Thompson, L. L., West Point

CUSTER COUNTY
Koefoot, Ted, Jr., Broken Bow
Leonard, Patrick, Broken Bow

DAWES COUNTY
McElligott, E. W., Chadron

DAWSON COUNTY
Anderson, A. W., Lexington

DODGE COUNTY
Byers, R. C., Jr., Fremont

DOUGLAS COUNTY
OMAHA
Avery, Hiram Henry
Barber, Herbert Gordon
Bowers, Warren F.
Carp, Oscar, Int.
Crawford, Wm. Henry
Curti, Ralph Elmer
Dolce, Daniel D., Int.
Dornberger, G. R.
Everitt, Neill J.
Fogarty, Chas. James
Freymann, J. J.
Gross, Jos. J.
Green, Chas. Joseph
Harms, H. H., Int.
Hartford, Thos. J.
Hennegan, Geo. F.
Henrich, Leo. Chas.
Hoekstra, Clarence, S., Int.
Kemp, Wm. T.
Koutsky, Jas. John, Int.
Krieg, Jacob J., Int.
Le Mar, J. D.
Lierman, C. E., Int.
Mangiameli, Carl L.
Martin, Paul J.
Mooater, Chas. J., Int.
Nurenberger, Robt. E.
Patton, John Erwin
Peterson, Wendell Case
Penry, Richard E., Int.
Reiner, Walter M., Int.
Senter, Vance E., Int.
Strand, Clarence Johnson
Wendland, John P.

FILLMORE COUNTY
Tucker, John G., Milligan

FRANKLIN COUNTY
Williams, Martin P., Franklin

GAGE COUNTY
Rush, Weaver A., Beatrice
Smartwood, F. M., Adams

HALL COUNTY
Campbell, John F., Grand Island
Johnson, E. George, Grand Island
Rich, Edward W. L., Grand Island

HITCHCOCK COUNTY
Brown, Kenneth W., Stratton

JEFFERSON COUNTY
Lynch, Geo. M., Fairbury

KEARNEY COUNTY
Sutton, Bruce, Minden

KNOX COUNTY
Carrig, M. H., Bloomfield
Green, Carl Raymond, Niobrara

LANCASTER COUNTY
LINCOLN
Bartholomew, P. H.
Baskin, Abraham H.
Colbert, Morgan R.
Everett, H. H., Jr.
Frazier, M. D.
Greer, Rex E.
Heidrich, John Paul
Johnson, R. W.
Lotman, Harry Alfred
Stein, Robt. J.
William, Russell I.

LINCOLN COUNTY
Anderson, Gustave Theodore, N. Platte
Anderson, Thorwald R., N. Platte
Clarke, H. L., Jr., North Platte

OTOE COUNTY
Campbell, G. C., Nebraska City
Thorough, Paul H., Syracuse

PAWNEE COUNTY
Harmon, Leo D., Pawnee City
Lowe, DeWitt S., Pawnee City

PHELPS COUNTY
Brewster, Donald E., Holdrege

RICHARDSON COUNTY
Lennemann, Ernest, Falls City
Youngman, R. A., Falls City

SAUNDERS COUNTY
Kasper, R. J., Wahoo

SCOTTS BLUFF COUNTY
Black, Eugene W., Gering
Hanna, Joe T., Scottsbluff
Rosenau, John A., Scottsbluff

SEWARD COUNTY
Clarke, Harry D., Seward

SHERIDAN COUNTY
Sullivan, Paul J., Rushville

THAYER COUNTY
Panter, Lt. E. G., Hebron

WEBSTER COUNTY
Obert, Francis C., Red Cloud

VALLEY COUNTY
Round, John N., Ord

News of Veterans

Dr. G. Paul Charlton has located in Hastings.

Major H. C. Stewart, formerly of Eagle, is now with the Pawnee Medical Unit.

Dr. Alister I. Finlayson has become associated with Dr. J. Jay Keegan of Omaha.

Dr. Robert L. Cushing is now associated with Dr. L. J. DeBacker at Hastings, Nebr.

Also returned to York is Dr. R. E. Karrer, recently released from the Army Medical Corps.

Dr. Jack M. Hayes is associated with Dr. Edmond Walsh at 1412 Medical Arts Bldg., Omaha.

Dr. Paul V. Bartos of Omaha has become associated with Dr. C. J. Manganaro at Kimball.

Retired as Lieutenant Commander in the U. S. Naval Reserve is Dr. M. H. Carrig of Bloomfield.

Also returned to Omaha is Dr. Raymond G. Lewis, who is back to his old location in the Aquila Court.

Dr. Joseph A. Longo has returned from military service and is practicing at 1036 Redick Tower, Omaha.

Dr. Floyd C. Nelson, Omaha, discharged from the Army Medical Corps, has reopened his office in Benson.

Dr. Donald Burdick, retired as commander in the U. S. Naval Reserve, returned to David City to resume practice.

Dr. Keith Sheldon, following his retirement from the Army Medical Corps, has joined the Orr-Teal Orthopedic Clinic in Lincoln.

Dr. E. L. Rich, formerly of Grand Island, recently discharged a major in the USA Medical Corps, has located in Sioux Falls, S. Dak.

Dr. A. J. Merrick, Fremont, retired from the Army Medical Corps, and has returned to resume his practice in the same location.

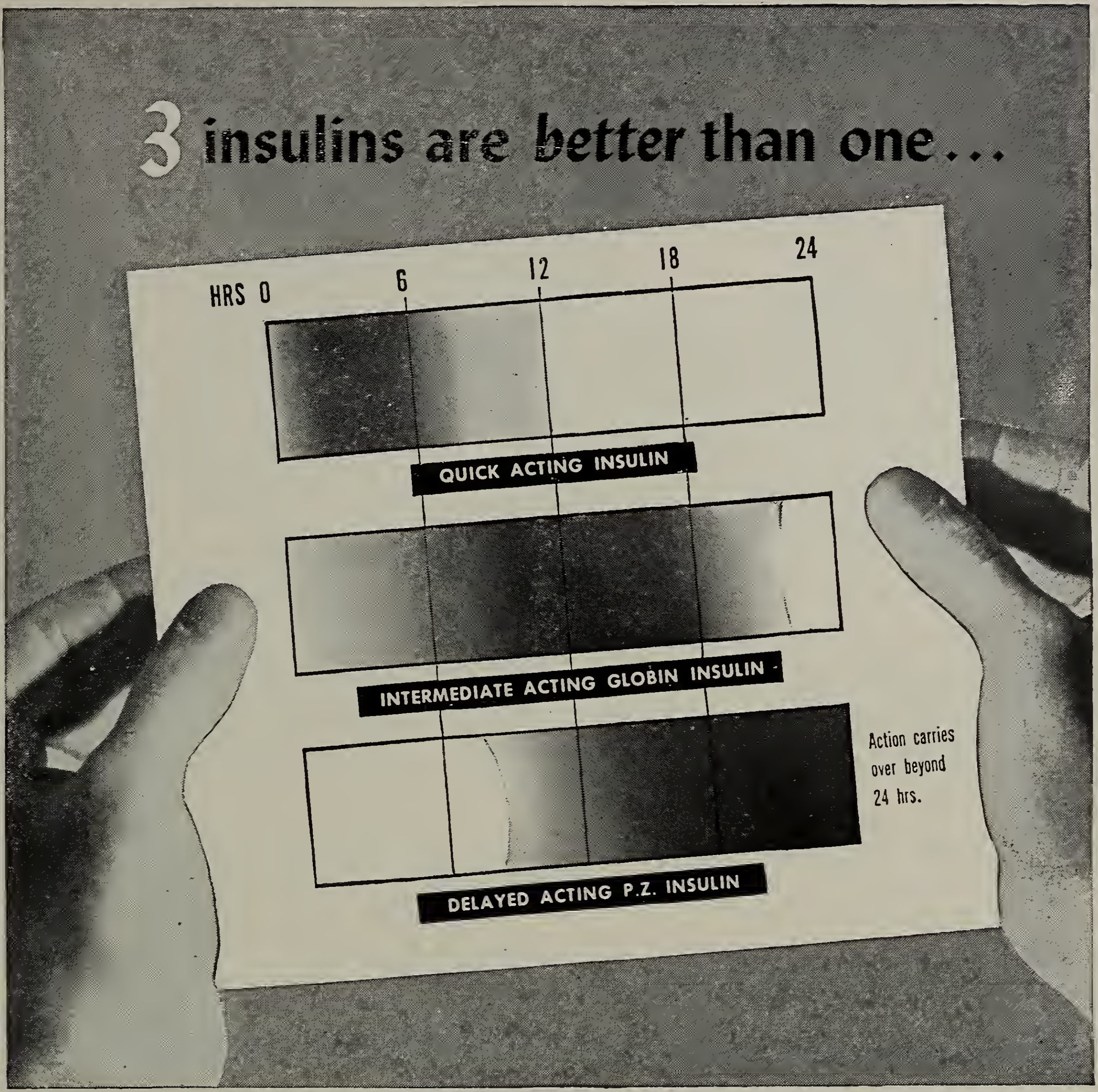
Drs. W. S. and R. N. Kilgore have entered a partnership in York. They are brothers recently retired from the service in the armed froces.

Dr. R. P. Luce, recently retired from the U. S. Naval Reserve as Lieutenant Commander, has returned to Fairbury to resume his practice.

Dr. Harold N. Neu, who practiced in Des Moines, Iowa, before entrance into military service, has opened an office at 462 Aquila Court, Omaha.

Dr. Frank J. Klabenes, who completed his service in the Army with the rank of Major, has returned to his former location at 1020 Medical Arts Bldg.

Dr. Chester H. Farrell, at one time connected with Hastings State Hospital, has located at 721 Medical Arts Bldg., since his separation from military service.



THE PHYSICIAN treating diabetes today has the choice of three types of insulin. One is rapid-acting but short-lived. Another is slow-to-start but prolonged. Intermediate between them is the new 'Wellcome' Globin Insulin with Zinc which starts fairly promptly and continues *for sixteen hours or more.* Action is maximal during the times of major carbohydrate intake but diminished toward bedtime so that the likelihood of nocturnal reactions is decreased. Today, the physician is wise to consider all *three* insulins.

'Wellcome' Globin Insulin with Zinc is a clear solution, comparable to regular insulin in its freedom from allergenic properties.

Accepted by the Council on Pharmacy and Chemistry, American Medical Association. Developed in the Wellcome Research Laboratories, Tuckahoe, New York. U.S. Patent No. 2,161,198. Available in vials of 10 cc., *80 units in 1 cc.* and vials of 10 cc., *40 units in 1 cc.* Literature on request.

'Wellcome' Trademark Registered

'WELLCOME'
Globin Insulin
WITH ZINC

BURROUGHS WELLCOME & CO. (U.S.A.) INC., 9 and 11 EAST 41ST STREET, NEW YORK 17

Metrazol - Powerful, Quick Acting Central Stimulant
COUNCIL ACCEPTED

ORALLY - for respiratory and circulatory support
BY INJECTION - for resuscitation in the emergency

Metrazol, pentamethylentetrazol, Trade Mark Bilhuber.

INJECT 1 to 3 cc. Metrazol as a restorative in circulatory and respiratory failure, in barbiturate or morphine poisoning and in asphyxia. PRESCRIBE 1 or 2 Metrazol tablets for a stimulating-tonic effect to supplement symptomatic treatment of chronic cardiac disease and fatigue states.

AMPULES - 1 and 3 cc. (each cc. contains 1½ grains.)
TABLETS - 1½ grains.
ORAL SOLUTION - (10% aqueous solution.)

Bilhuber-Knoll Corp. Orange, N. J.

TECHNICAL EXHIBITS NEBRASKA MEDICAL ASSEMBLY

(Continued from p. 215)

'Caligesic' Ointment—a greaseless anesthetic and analgesic ointment which possesses definite antipruritic action. A cordial welcome awaits all visitors.

BOOTH NO. 18—Kelley-Koett Mfg. Company, Covington, Ky.:
Kelley-Koett invites you to see the new Keleket Shockproof KXP-100 Combination Diagnostic X-ray Unit. You physicians who have longed for the convenience of x-ray equipment right in your own office will find everything desired in this Keleket KXP-100 Diagnostic Unit. It has sufficient power to take care of all radiographic and fluoroscopic requirements in the vertical, horizontal and Trendelenberg positions. Some new x-ray accessories will also be exhibited.

BOOTH NO. 19—Frederick Stearns & Company, Detroit, Mich.:
You are cordially invited to visit the exhibit of Frederick Stearns & Company Division. Neo-Synephrine Hydrochloride products for intranasal, parenteral and ophthalmic use will be featured. Appella Apple Powder, remarkably efficient therapy for diarrhea; Gastric Mucin, "nature's antacid;" and various vitamin products will also be shown. Members of our professional staff will be in attendance to discuss these products with you.

BOOTH NO. 20—Lanteen Medical Laboratories, Inc., Chicago, Illinois:
Lanteen Medical Laboratories, Inc., presents: VI—Teens Vitamin Tablets, VI—Teens Homogenized Vitamins for Infants, Hexestrol (Lanteen), Hexypheen (Hexestrol with Phenobarbitol) and Lanteen Flat Spring Diaphragm and Jelly Sets.

BOOTH NO. 21—C. B. Fleet Company, Lynchburg, Va.:
Phospho-Sodo (Fleet) has been an ethical product over half a century. It is a highly concentrated, purified, aqueous solution of the two U.S.P. phosphates in stable form. It is indicated in hepatic and gallbladder dysfunctions, and when a thorough eliminating and cleansing action is desired on the upper and lower gut.

BOOTH NO. 22—Reed & Carnrick, Jersey City, N. J.:
Since 1860 the high ethical and scientific ideals of the Reed and Carnrick laboratories have continued to merit the confidence and support of the American medical profession. Scientific research and rigid technical supervision assure the potency, clinical efficacy and economy of all medicinal agents bearing the name of this company.

BOOTH NO. 23—Phebus Surgical Company, Omaha, Nebr.:
Once again the Phebus Surgical Company of Omaha is glad to exhibit new equipment, instruments, and the latest drugs to the doctors of Nebraska. Mr. D. D. Farmer, C. M. Bloom, and Mrs. Vie Phebus Reeder, will be on hand to greet old friends and the returning doctor.

BOOTH NO. 24—W. B. Saunders Company, Philadelphia, Pa.:
This publishing house will exhibit its complete line of books, including Bockus' 3-volume work on "Gastro-enterology," new (5th) edition of Beckman's "Treatment," Allen, Barker & Hines' "Peripheral Vascular Diseases," new (2nd) edition of Mason & Zintel's "Preoperative and Postoperative Care," Jackson & Jackson's "Diseases of the Nose, Throat and Ear," new (3rd) edition of Stokes, Beerman & Ingraham's "Syphilology," and many others.

BOOTH NO. 25—Medco Products Company, Chicago, Ill.:
The Medco Products Company will welcome you to their booth. Medco is the manufacturers of Litmasin PH Indicators and many other items and sole distributor in this area for the famed Teca Gydro Galvanic equipment that is so successfully used by the Army, Navy, and Veteran Administration hospitals.

BOOTHS NO. 26 & 27—Physicians & Hospitals Supply Co., Minneapolis, Minnesota:
The Physicians and Hospitals Supply Company extend you a cordial invitation to visit their exhibit in Booths 26 and 27. Our representatives, Mr. Joseph R. Carey and Mr. Merle Else will be glad to show you a fine selection of Swedish stainless steel instruments, and many other new and outstanding pieces of medical equipment and supplies.

BOOTH NO. 28—Ulmer Pharmacal Company, Minneapolis, Minnesota:
The Ulmer Pharmacal Company cordially invites you to visit our exhibit in Booth 28 and see our fine line of pharmaceuticals. Especially featured among the Ulmer quality drugs will be our outstanding calcium, iron and vitamin tablet, Ulvical "Ulmer." Let us demonstrate this feature and our other new Ulmer specialties.

BOOTH NO. 29—Pet Milk Sales Corporation, St. Louis, Mo.:
A complete display of material illustrating the time-saving Pet Milk services available to physicians. Specially trained representatives will be in attendance to give you information about the production of Pet Milk and its use for infant feeding. Miniature cans will be given to physicians visiting the exhibit.

BOOTH NO. 30—Crosby Surgical Company, Omaha, Nebr.:
Exhibiting what is new or available for immediate delivery! After two years the Crosby Surgical Company will be on hand to greet their friends and customers. George Crosby, Bob Kafka and R. Bigsby will be here throughout the meeting, and hope to serve you with the best of our ability.

BOOTH NO. 31—Donley-Stahl Company, Lincoln, Nebr.:
The Donley-Stahl Company, Lincoln, will have a representative display of surgical, hospital and laboratory supplies. Old friends and new are cordially invited to visit our booth.

(Continued on p. xl)

Greater Response in IRON-DEFICIENCY ANEMIAS

White's MOL-IRON TABLETS

White's Mol-Iron is a specially processed co-precipitated complex of molybdenum oxide 3 mg. (1/20 gr.) and ferrous sulfate 195 mg. (3 gr.). Available clinical evidence indicates that it is not only tolerated much more satisfactorily than ferrous sulfate, but also that its use provides the striking advantages charted below:

GREATER RAPIDITY OF CLINICAL RESPONSE

MOL-IRON

$FeSO_4$

TREATMENT DAYS

Completely effective therapeutic response (return to normal blood values) was obtained in an average of 13.7 days of Mol-Iron therapy—whereas ferrous sulfate therapy *failed* to produce normal hemoglobin values even after an average of 20.3 days.

GREATER AVERAGE DAILY HEMOGLOBIN INCREASE

0.36 Gm. % **MOL-IRON**

0.12 Gm. % **$FeSO_4$**

GRAMS PER CENT

Note that the group treated with Mol-Iron averaged a daily hemoglobin increase markedly greater than the increase achieved with ferrous sulfate.

MUCH LOWER AVERAGE INTAKE OF IRON

3.5 Gm. **MOL-IRON**

7.87 Gm. **$FeSO_4$**

GRAMS

The group treated with ferrous sulfate ingested 100% more bivalent iron than the Mol-Iron treated group—yet in the Mol-Iron group a return to normal blood values was achieved whereas optimal response in the ferrous sulfate treated group was not accomplished in the period of study.

WHITE LABORATORIES, INC.
Pharmaceutical Manufacturers
NEWARK 7, N. J.

Charts summarize results of controlled study of comparative therapeutic response in post-hemorrhagic and nutritional hypochromic anemias. Series includes 49 cases treated with Mol-Iron, 21 with exsiccated ferrous sulfate; results are typical of those observed in treatment of iron-deficiency anemias with White's Mol-Iron.

DOSAGE: 1 or 2 tablets 3 times daily after meals.

Bottles of 100 and 1000 tablets.

Ethically promoted—not advertised to the laity.

ALCOHOL—MORPHINE—BARBITAL

ADDICTIONS Successfully Treated Since 1897—
Founded by B. B. Ralph, M.D.

Write for description booklet

The Ralph Sanitarium

529 Highland Ave. Kansas City, Mo.
Telephone—VIctor 4850

Registered by the Council on Medical Education and Hospitals of the A. M. A.

LEG MAKE-UP FOR THE *ALLERGIC PATIENT*

3 SHADES
- PEACHGLOW (LIGHT)
- RIO (MEDIUM)
- SUNGLOW (DARK)

AR-EX COSMETIC HOSE contains no rosin, aniline dyes, or other known skin irritants. Goes on smoothly, does not rub off, but is easily removed with soap and water. *Send for Free Formulary.*

R AR-EX Cosmetic Hose

AR-EX COSMETICS, INC. **1036 W. VAN BUREN ST. CHICAGO 7, ILL.**

FREE FORMULARY

DR.__________
ADDRESS__________
CITY__________
STATE__________

CLASSIFIED AD

FOR SALE—General Electric electrocardiograph machine in A-1 condition, 5 years old, reasonable. Can be seen at 901 Federal Securities Building, Lincoln, Nebraska, Dr. L. E. Marx.

CLASSIFIED AD

Friedman Pregnancy Test requires only 48 hours. Write for mailing tube and vial. Established 1938. Price $5.00. Pregnancy Diagnostic Laboratories, H. S. Lames, D.V.M., Dysart, Iowa.

TECHNICAL EXHIBITS NEBRASKA MEDICAL ASSEMBLY

(Continued from p. xxxvi)

BOOTH NO. 32—Lederle Laboratories, New York:
We appreciate the many fine friends we have in the medical profession in Nebraska. A display of our products is being prepared for your meeting. Please visit our booth so that we may meet you personally.

BOOTHS NO. 33 & 34—The Coca-Cola Company, Atlanta, Ga.:
Coca-Cola will be served through the joint courtesy of Lincoln Coca-Cola Bottling Company and The Coca-Cola Company.

BOOTH NO. 35—F. E. Young & Company, Chicago, Ill.:
Rectal dilators are used by physicians to treat certain cases of constipation, hemorrhoids, rectal neurosis, pruritis, and dysmenorrhea, uncomfortable bowel movements and other conditions which arise due to a tight or spastic anal sphincter muscle. They are used in children with anonic colon in association with a spastic anal sphincter and also post-operatively. See our display.

BOOTH NO. 36—Seiler Surgical Company, Inc., Omaha, Nebr.:
The Seiler Surgical Company invites all registrants at the Annual Assembly to visit our display directly across from the registration booth and extend our best wishes for a very successful year to all members.

WYETH INCORPORATED will have on display their series of six paintings, "Pioneers of American Medicine" by Dean Cromwell.

STREPTOMYCIN SHORTENS CONVALESCENCE IN TULAREMIA

A new bacteria-destroying substance called streptomycin, derived from a soil microbe, similar to penicillin, has relieved the symptoms in tularemia within 12 hours of administration, according to Lee Foshay and A. B. Pasternack.

To date there has been o specific treatment for this disease, sometimes called "rabbit fever." The doctors' report, appearing in the February 16 issue of The Journal of the American Medical Association, is based on the treatment of seven patients infected by handling wild rabbits.

Foshay and Pasternack, who are from the Departments of Bacteriology and of Medicine, University of Cincinnati College of Medicine, and the Cincinnati General Hospital, say that the disease usually causes 31 days of fever, keeps the patient in bed 31 days, and has a duration period of four months.

With the administration of streptomycin, the doctors noted, patients experienced relief from the distressing general symptoms of headache, mental dullness, sense of prostration, joint pains, muscle pains, chills or chilly sensations and nausea before the end of the first day of treatment. The authors feel that the action of this drug will greatly reduce the period of convalescence.

The dosage, 30,000 units injected into the muscles every three hours, was administered for five days. With further experience the doctors recommend a larger daily dosage to be injected beneath the skin rather than into the muscles.

Tularemia is sometimes called "rabbit fever" for almost 90 per cent of human infections result from contact with the infected tissues, body fluids or pelts of rabbits. The disease is characterized by swellings of the skin with the formation of abscesses, swelling of the lymph glands and small spots of infection in the internal organs.

Streptomycin, which has successfully attacked diseases not affected by either penicillin or the sulfonamides, was discovered by Selman A. Waksman, of the New Jersey Agricultural Experiment Station, Rutgers University, in 1943, but is not yet generally available.

THE NEBRASKA STATE MEDICAL JOURNAL

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EDITORIAL

THE HEARINGS ON THE WAGNER-MURRAY-DINGELL BILL

Newspaper reporters on the Washington scene appear little impressed by the hearings on the Wagner-Murray-Dingell Bill which have dragged on for over a month. Whether these ladies and gentlemen of the press consider the arguments "old stuff" unworthy of their time and effort it takes to record the events, we do not know. What is obvious from their silence is that publishers have lost interest. One scans the daily newspapers in vain for a report on what is happening in the Senate Committee on Education and Labor so far as the hearings on Senate Bill 1606 are concerned.

The hearings in themselves are to a great extent ironical. In truth, what can they be expected to accomplish? Senator Murray, one of the sponsors of the bill, is chairman of this Committee. He has been an advocate of socialized medicine for years. He is, or at any rate should be, aware of the implications of his proposed legislative monstrosity. Even the most hopeful optimist would be wasting his time and his breath if he attempted to dissuade the honorable Senator from his avowed attitude. "The people of America are in need of more and better medical care," some elements in Congress shout loudly and venomously from their political house-tops!

The most remarkable phenomenon is the blind faith that theirs is the only plan which can bring a better quality and a greater quantity of medical service. How they can afford the luxury of this psychology in the face of customary red tape, waste and confusion, in practically every single governmental effort, is inconceivable. Furthermore, the sponsors of the bill are fully aware that the vast majority of the doctors in this country are unwilling to accept federal employment. How, therefore, can we escape the conclusion that these gentlemen are either so imbued with their philosophy that they have become devoid of reasoning, or that they feel their political fortunes call for a challenge to our established democratic institution?

Judging from the copy in the past few issues of the Journal of the American Medical Association it is doubtful, in our opinion, that the hearings on the bill will have much bearing on the final action of the Committee.

THE ANNUAL ASSEMBLY

Of personal interest to Nebraska physicians was the discussion of the Nebraska Medical Service plan, Thursday, May 9, in which doctors contrasted the voluntary nature of the plan with possible compulsory government participation. Dr. Arthur J. Offerman, Omaha, president of the plan declared that "Medicine today faces the greatest crisis it has ever known. If we lose this fight, medicine will be taken down that dark road of state socialism and will wind up in the abyss of totalitarianism."

Reporting that 11,000 Nebraskans are now participating in the group pre-payment plan Dr. Offerman stated that it has been an undisputed success during its 18 months of operation, and its future expansion and increased service to the people of Nebraska is assured. "We have learned from our first year and a half that we are fundamentally right and actuarily sound. We have achieved an efficient, solvent, smooth functioning organization closely integrated with the Blue Cross plan, Nebraska Medical Service supplying medical care and the Nebraska Blue Cross hospital care."

A DRAMATIC moment came during a pause in the Thursday forenoon session of the Nebraska State Medical association at the Cornhusker when Maj. Gen. Paul R. Hawley, former chief surgeon of the ETO, bestowed upon Dr. Rex L. Diveley of Kansas City, former chief of the rehabilitation division of Hawley's ETO office, the government's Legion of Merit Medal.

The official citation for "highly superior ability" of Dr. Diveley was supplemented by General Hawley's assertion that in his opinion the doctor performed the "greatest single medical service" in the European theater. In his talk following the presentation the general, now chief of the Veterans administration medical division, outlined the work of rehabilitation in this country.

* * *

TENTATIVE plans for rehabilitation of the veteran, the general stressed, is the importance of sheltered workships, equipped with army and navy surplus material. From these many will ultimately go out into industry. Others are so disabled that they cannot work in any but a special environment.

He cited the Bulova watch shop as an instance of cooperation of industry. 25,000 watchmakers are now needed in this country and many disabled veterans, even psychiatric cases, can do the best of close, fine work. In connection with sheltered workshops he predicted building up of surrounding colonies of families of patients.

He is especially interested in out-patient service, which keeps disabled veterans out of the hospital atmosphere which as a rule is not the most conducive to rapid recovery. "How far we can go in out-patient treatment depends on the entire medical profession."

* * *

Discussing pension policies for those participating in the second World war, General Hawley pointed out that the great number of veterans presents a vastly greater problem than that following the last war, in which fewer people were vitally interested.

* * *

Other highlights of the Sessions were:

A resolution passed by the House of Delegates recommending that physicians discontinue taking new commitments under the E.M.I.C. program after July 1, 1946. The resolution was first sent to the Council where an amendment was suggested that the program be discontinued one year after Congress had declared the national emergency as over. However, this amendment was not accepted by the House of Delegates and the original resolution was passed. The House of Delegates felt that the program as administered by the Children's Bureau was no longer necessary.

* * *

Another resolution passed by the House of Delegates was the result of charges made before the Senate Reference Committee of the 1945 Sessions of the Legislature that licensed practitioners of medicine were collaborating with members of other professions of the healing art to circumvent the enforcement of the law as proscribed in LB 40 of the 1943 Legislative Session. It was felt that inasmuch as the Nebraska State Medical Association sponsored and supported the Bill it was within the realm of interest of our Association to see that the statutes were enforced. The resolution follows:

"BE IT RESOLVED, That the House of Delegates of the Nebraska State Medical Association request and urge the Director of the Bureau of Examining Boards to prosecute to the limit any member of the medical profession participating in such practices, or any other violation of the Nebraska Medical Practice Act, and

"BE IT FURTHER RESOLVED, That the sum of one thousand dollars ($1,000.00) be appropriated from the funds of the Nebraska State Medical Association to assist in carrying out the purposes of this resolution. This fund is to be utilized only in the event funds are not available for said purpose."

* * *

A fee schedule for medical and surgical care of all government agencies was adopted by the House of Delegates. This will cover fees for service-connected disabilities under the care of the home doctor.

* * *

It appears that at the present time there is some discussion regarding the possibility of modifying the present system of medical care given to employees under the Midwestern Agricultural Workers Health Association. Under current policy these workers are provided with medical care by the private physician on a fee basis. Now some rumors have it that this policy is to be replaced by some form of clinic where the physician would be paid an hourly fee. The House of Delegates went on record as opposing "any mass clinics of any federal agency . . . on any other basis than the fee schedule adopted by the House of Delegates."

PRESIDENT EARLE G. JOHNSON
Grand Island

Earle G. Johnson, A.M., M.D., F.A.C.S., was born in Bellwood, Butler County, Nebraska, May 30, 1887. He attended high school in Clarks, Nebr., and in 1905 entered Nebraska Wesleyan University. Following attendance there he matriculated in the University of Nebraska, Lincoln, where he received Bachelor of Arts degree in 1910, Master of Arts in 1911, and served as fellow in embryology and physiology from 1908 to 1911, University of Nebraska. In 1911 he entered Rush Medical College from which he received his M.D. degree in 1913. He served an internship in Akron City Hospital, and in July, 1914, he located in Grand Island. In 1918 he entered the U. S. Army Medical Corps, and in 1919 he was discharged with the rank of Captain. He returned to Grand Island and practiced until 1927 when he went to Europe where he attended clinics on the continent. He returned to Grand Island in the fall of that year.

Dr. Johnson has enjoyed an active career in professional and community life. He served as President of the Hall County Medical Society and at various times was a delegate to the House of Delegates of the State Association. He served on the Council for many years. In 1940 he was appointed President of the Board of Medical Examiners, a post which he held until 1945, when he was elected President-elect of the State Medical Association. He served as a member of the Board of Trustees of the Association for several years. In 1945 he was elected a member of the Executive Committee of the Federated Board of Medical Examiners. Dr. Johnson has also served as president of the Advisory Board to the Boy Scouts of Hall County; president of the Rotary Club, and chairman of the Central Republican Committee of Hall County. He is a fellow of the American College of Surgeons, and from 1932 to 1934 he was president of the Nebraska section of the College.

Presidential Address

CHARLES McMARTIN, M.D.
Omaha, Nebraska

The past year's activities have been many as we have emerged from the war period. We have had presented to us a wide variety of problems that we would not have had to deal with had we not been engaged in a war that involved such a large percentage of our population and, consequently, so many of our doctors.

We are very proud of the fact that the members of our armed forces had excellent medical care through the untiring effort of the personnel of the medical department in all branches of service. We feel that we owe a great debt to those of our members who represented us in this work. Many of these men were called into service at a critical period in their lives and they have made many sacrifices. Many were well established in private practice, and gave up more than we can ever estimate, in order that they might do their part and ours. It is through their efforts that our armed forces had the best medical care that was possible to provide. We owe them a sincere vote of thanks. The men who have carried on at home to keep up our good standards of medical care under conditions that have of necessity made many of our members do more than they were physically fit to do, also deserve a great deal of credit.

The various problems put before us in the past year have served to emphasize more and more that the time is past when the programs of our meetings, be they county, district or state, should be limited to scientific subjects. We must keep ourselves informed that we may have a full share in the discussion of these new economic and social programs. The term "Public Relations" must take on a new meaning for us. We can no longer afford to pass this by with just letting the other fellow do it.

We should all endeavor to be informed on the economic changes that are constantly coming about in the practice of medicine just as we try to keep informed on the scientific changes.

We must realize that there has been a certain awakening among the people in regard to medical care and the opportunities available for such care.

These changes in economic and social affairs do not affect medicine alone. We see new methods to promote suitable public relations in all lines of endeavor. These newer methods of public relations must be worked out by us so that we cannot be blamed, as we are now, for the fact that the medical profession and the public do not understand each other.

The formation of the Council on Medical Service and Public Relations of the American Medical Association in 1943 was a distinct step forward.

We should not forget that the demand for the formation of this Council originated in the minds of delegates from State Medical Associations. They were our representatives in the formation of this Council. Therefore we, individually, and collectively, should support this Council that they may do the job for which they were created, in the best possible manner. We can best support them by making ourselves familiar with all their plans and the methods involved to carry out these plans. Then we should tell, not only our patients but the public as well, just what we are doing and tell them in a way which they will understand that our plans and our ethics are based on a wholehearted endeavor to provide the best of medical care in the best possible manner, for all concerned.

The Council on Medical Service and Public Relations called a conference last October in Chicago. They had asked for two representatives from each State Association to meet with them. Thirty-five States were represented at this meeting. I think we can look upon this conference as being somewhat of a revival meeting. All properly conducted revival meetings give rise to much good and I am sure that is true of this meeting. The developments from this meeting were widespread as one can readily see if he has kept up with the reports of the various subcommittees put to work at that time.

Other meetings followed on state, district and national levels elaborating on the economic subjects brought to the attention of that conference so that specific recommendations were made to the house of delegates of the American Medical Association in regard to:

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* Read before the Annual Assembly in Lincoln, May 7, 1946.

1. Pre-Payment Medical Care Plans.
2. E.M.I.C. Program.
3. Fourteen Point Program.
4. Placement of Retiring Medical Officers.
5. Publicity and Public Relations.
6. Veteran's Administration.
7. Rural Health.

The result was that the December meeting of the House of Delegates of the American Medical Association was given over largely to the discussion of Medical Economics. The resolutions adopted and the plans outlined to back up those resolutions will, I am sure, go a long way towards combating "political" medicine.

You may ask what part we as a state association have had in these developments the past year. I am very proud to say that your Association through its delegates of American Medical Association, has done its full share of this work.

I wish particularly to mention the work of our busiest committee, the Planning Committee. All of their work has been admirably organized by their Chairman, Dr. Floyd S. Rogers, and our Executive Secretary, Mr. M. C. Smith. The details of this work you will find in Dr. Rogers' report to our House of Delegates.

A year ago the House adopted the report of the Planning Committee on Pre-Payment Medical Care. This report recommended that the Nebraska Surgical Plan be extended to become a State-wide Plan. It also recommended the appointment of a Pre-Payment Medical Care Committee to act as a liaison committee between the Association and the Nebraska Surgical Plan. Since the Planning Committee had done so much work and study of Pre-Payment Medical Care Plans it seemed to us that this committee should be the one to act as the liaison committee for this year rather than appoint a new committee. So they have carried on this work and the Nebraska Surgical Plan has extended out over the state. They have represented us at several national meetings held under the auspices of the Council on Medical Service and Public Relations and the Trustees of the American Medical Association. These meetings have resulted in the formation of the Associated Medical Care Plans, Inc. This is a national organization to co-ordinate the existing Voluntary Pre-Payment Medical Care Plans and help in the establishment of others. They will also set up a definite standard which newly formed Plans must meet before being approved.

The Nebraska Surgical Plan has recently extended its benefits to include "In Hospital Medical Care" and have changed the name of the organization to "Nebraska Medical Service." This is YOUR organization and its future is in your hands. The Planning Committee also worked out a questionnaire to send to all of our doctors in service in order to ascertain how the State Association could best help the returning medical officers.

This was followed by the formation of an information bureau in the Executive Secretary's office relative to locations and the need of physicians in different localities. This has proved of considerable help both to the returning officers and to the communities which needed doctors.

The last function of this Planning Committee has been the working out of a Fee Schedule for all governmental agencies having in mind the immediate need of such a schedule for the Veteran's Administration Program. This schedule is to be submitted to the House of Delegates at this meeting for their adoption or rejection as they may see fit.

You may judge from what I have mentioned that your Planning Committee has had a busy year. They have spent much time and energy on all these projects and are deserving of the sincere thanks of our entire association.

I will not go into any details of the work of other committees and officers.

I wish to thank them all for the wonderful support they have given me throughout the year.

I wish to again urge you to read the editorials and organization departments of the Nebraska State Medical Journal and the Journal of the American Medical Association. I appreciate the fact that you are all busy and yet I am sure you can all find time if you will, to read those parts of the Journals that will serve to keep you abreast with what is going on in organized medicine. Then, having that knowledge, you will be better able to do your part as a citizen in the discussion of all the economic and social problems pertaining to the health of the nation.

The people are always willing to abide by the judgment of their doctors in formulating the best plans for their medical care. Therefore, we should be fully cognizant of what organized medicine is doing and be ready to do our share in giving it publicity.

Let us be modern in this publicity with more radio talks given by our doctors and sponsored by our county medical societies. We should also have more articles in our national magazines and daily papers.

We are organized to do a first class job and the sooner we make the public understand that the less likely we will have to deal with "State" or "Political" medicine.

I wish to thank you most sincerely for the pleasure and honor of being your president the past year. It is a great honor. The wonderful support given to me by all of you has made it a real pleasure.

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IN THIS ISSUE

THE ANNUAL Address of the retiring President was heard by many of the readers of this Journal. Those who did not will have the opportunity to read this inspiring message on page........ 220

AN unusual feature this month is the Commencement Address presented before the graduating class of the University of Nebraska College of Medicine last April. We present this interesting document on page........ 223

BRUCELLOSIS is a familiar problem to most of us. A comprehensive discussion of the subject is presented by Dr. Grace Loveland on page........ 229

WHAT is the significance of crossed-eyes in the child? What is to be done about it and at what age should treatment begin? Read this instructive discussion on page 233

TUBERCULOMATA of the liver is the subject of a case report submitted by Dr. R. Allyn Moser, Associate Professor of Internal Medicine, University of Nebraska College of Medicine. The paper is well illustrated and makes interesting reading. It is found on page........ 236

TWO intriguing case reports with clinical and laboratory data are presented by Dr. John R. Schenken, pathologist at the Nebraska Methodist Hospital in Omaha. You will find these on page........ 239

Facing the Future in Medicine*

E. V. COWDRY
Professor of Anatomy, Washington University, and Director of Research, Barnard Free Skin and Cancer Hospital
St. Louis, Missouri

The reasons given by students why they choose medicine as a career are interesting. None of them mention financial return as a factor. They hope that it will be adequate but they have few illusions. A majority say that it is because they want to be helpful. A good many remark that the doctor is the most respected person in the community and that they also would like to earn such respect. Related to this is desire for authority. There is no appeal from the doctor's orders. The tone of the motor cop is less arrogant. A significant point is the custom of doctors' sons and daughters to enter medicine. At Washington University 55 out of 354 medical students are in this category. It means that the experience of being brought up in a doctor's family supplies a powerful motive to go and do likewise.

But desire to join this high calling is of itself not sufficient. There are two other essential attributes. The first is ability. It is a difficult task to explain to a student of but slight mental endowment that, despite a longing from childhood to become a doctor and a willingness to work day and night to that end, he can't be allowed to do so. These unfortunates are present in every entering class and are easily identified. It is far more difficult to estimate the character of the students and politely but effectively to discourage those who though able, cannot be trusted in matters of life and death, and therefore would be a menace to the public.

Members of graduating classes throughout the nation can hold their heads high because they have chosen a profession of dignity and of surpassing usefulness and because their ability and their character has been found worthy by their instructors.

Times are changing and you naturally wonder what the future holds in store for you. But it would be better to think "what you can give," for your satisfaction will be in the giving. One of the attributes of a perfect gentleman was, according to Cardinal Newman, "the spirit of giving as though he were receiving." I don't need to say that the future is full of promise. That you will work under very different conditions from those faced by your fathers in medicine—say 25 years ago—is clear. It is interesting, nevertheless, briefly to review the state of affairs then, and now.

Obviously you can do much more for your patients than they could. There is less despair now-a-days. You can save lives, where they were helpless. A diagnosis of diabetes, or of pernicious anemia, is no longer a death warrant. Surgical aid can be given in conditions previously considered inoperable. Blood transfusion is much more effective now, shock can be relieved better and intravenous feeding can be resorted to. Using sulfa drugs, or penicillin, you can treat many infections with far greater hope of success. World War I death rate from all types of pneumonia was 24 per cent, while in World War II it was reduced to less than 1 per cent. And the meningitis death rate in World War I, of 38 per cent, dropped in the second war to less than 5 per cent. The death rate in staphylococcic infections with bacteremia, has been reduced from 72 to 10 per cent. At present you can inhibit gonorrhea and early syphilis so quickly and surely that the restraining dread of contagion is dangerously minimized.

A recent publication of the Metropolitan Life Insurance Company describes a most encouraging decline in death rate from tuberculosis — "the great white plague." From 1915 to 1945 the deaths per 100,000 policy holders decreased from 223.9 to 34.4, a drop of 85 per cent. The likelihood of complete victory over this disease is expressed. Perhaps streptomycin, or some other antibiotic, will solve this problem. You start your careers in this new age of antibioties. The greatest human affliction is, of course, malaria with a conservatively estimated 300,000,000 sufferers. The deaths from malaria in India alone are usually placed at 2,000,000 a year. Reports are conflicting regarding the new Australian wonder drug for malaria, yet I think that you may expect a cure, and that soon.

But it is chiefly in prevention that you can accomplish most, being so much better armed than your parents were. The advances in this now dominating phase of medicine are so many and so revolutionary that no two people would summarize them in the same way. Vaccination against tetanus is now routine. Using typhus fever vaccine, the deaths from this disease in World War II were reduced to one. And there is the wonderful insecticide DDT which helped out the vaccine. Only 26 years ago influenza spread like wild fire, causing 548,000 deaths in the United States alone. Now a vaccine is in quantity production and will be available to the public before long. And the end is not yet. It may be that in your time of service recurrent colds will be prevented. What an achievement that would be!

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* Commencement Address, University of Nebraska School of Medicine, March 18, 1946.

In the past 25 years there has been notable progress in the early recognition of deficiencies in vitamins and essential food factors. Now the consequences, which before slowly caught up with the individuals, can often be prevented by providing a proper diet. This may not sound very dramatic but it is difficult to overestimate what it means to millions of people.

Advances in industrial medicine have supplied prevention on a vast scale. Individuals by the thousand are today routinely assigned to the jobs they can do best and they are protected in the performance of their duties. Efficiency is increased and man power is conserved. If industry had not forged ahead we might have lost the war.

Prevention is also ever-so-much more effective than it used to be in another large division of medicine. I have in mind mental disease of which an upswing is expected as a result of the stress and strain and need for adjustment to new conditions during and after the war. Psychiatric guidance has leaped ahead in this country. Unless many conditions of maladjustment, or disorganization as it is now called, are corrected they become chronic and hopeless.

All of us age and die and a large job in prevention is, starting when life is at the peak, to foresee and to prevent physical changes and mental quirks which are cumulative, and, if neglected, will jeopardize the health and usefulness of the rapidly increasing fraction of our people over 40 years of age. Here, especially, "the guide, philosopher and friend" attitude is needed.

In practice you will be far less concerned with acute infectious diseases and will be more occupied with disease of long standing than your predecessors were, despite advances in prevention which you will help to make. The long term maladies include deficiency diseases, cardiovascular renal diseases, cancer and mental disease. The patients seeking help will not only present, in the main, different problems from those in waiting rooms a generation ago; they will also be different in age and sex distribution.

The national census, taken every 10 years, supplies significant figures in this connection. As between 1920 and 1940 the percentage of children under 5 years of age decreased from 11 to 8; while that of persons 65 years and over increased from 4.7 to 6.8. This trend will continue so that there will be relatively fewer children and more old people.

We get a longer view of the rising tide of the fair sex if we examine the census returns for 4 ten-year periods. In the old days this was a virile country with males dominating. This excess of males is disappearing.

In 1910 it was	2,692,288
In 1920	2,090,242
In 1930	1,500,114
In 1940	453,919

Whether the females will continue to gain over the males at the rate of 1,000,000 a year remains to be seen. No change of significant proportions has been observed in the relative number of girl and boy babies. The latter were 51.36 per cent over a period of 15 years. But females have evidently profited more than males from advances in medicine. In Metropolitan policy holders the age adjusted death rate for males decreased 26 per cent from 1921-1943. In comparison with this, females achieved a decrease in death rate during the same period of 43 per cent. The difference between a 26 per cent and a 43 per cent reduction is considerable. Specific data for individual diseases are instructive.

Deaths from chronic heart disease per 100,000 decreased in

Females from	123.0 to 102.7
Males	137.9 to 124.6

Deaths from pneumonia per 100,000 decreased in

Females from	63.9 to 16.1
Males	81.9 to 31.4

Deaths from cancer per 100,000 decreased in

Females from 88.2 to 82.7

while they actually increased in

Males from 74.8 to 84.8

Metropolitan policy holders are representative of an increasing group in this country whose medical needs are fairly well cared for. For continental United States the death rates at all ages of males were in 1943 greater than those of females, a difference extending back many years. Females will certainly outnumber males to a greater and greater extent in the United States. It may well be an improvement. But why is this happening?

I question whether it is due to any inherent superiority in the construction of the female over the male body. Two principal reasons are evident and others probably exist. The first is that women more readily seek medical advice than men. The second is that women are the employers in the home almost all their lives. The men are employers in their business even in minor capacities. When they retire they give up their employer status and suddenly become employees at home. Women are not subjected to this drastic change.

So you will have more women than men to help in private practice especially when the veterans, mostly men, first seek medical aid from the Veterans Administration. Later on, when a grateful people likewise give medical care to the wives and children of veterans the excess of females over males will seem to you less.

These fundamental numerical increases of old people as compared with children and of females as compared with males will not be noticed by you to the extent that they would have been 25 years ago, for the family doctor is rapidly becoming extinct. To him came all without regard to age or sex. To you in this age of specialization will come selected groups. To the pediatrician only children, to the geriatrician only old people, to the gynecologist only women and so on.

It will be far more difficult for you than for your fathers and mothers, when they entered medicine some 25 years ago, to uphold the high place of the physician as "guide, philosopher and friend." An otolaryngologist hasn't much to philosophize about if he merely looks up his patient's nose and then quickly refers him to somebody else. It is for the country practitioner, and for the urban internist, who should be the integrator, to try to carry on this fine tradition. More strength to them!

The handicap is that medical service is moving out of the home into clinics and hospitals—a good thing for efficiency but definitely not helpful in maintaining the guide, philosopher and friend relationship. Little attention has been given to this shift notwithstanding its massive proportions. Compare the data presented in the Journal of the American Medical Association for the years 1920 and 1944.

> In 1920 a total of 817,020 hospital beds; and in 1944 a total of 1,729,945 hospital beds.

This includes all hospitals, military and otherwise. During this time the population increased from 105,683,108 in 1920 to about 138,000,000 in 1944 (including armed forces overseas). The exact population in 1944 is not known because it was not a census year. A simple calculation shows that the ratio of beds to persons of 1:129 in 1920 increased to approximately 1:80 in 1944. What this will be when the Government completes its building program, tempered by the destruction of some hospitals your guess is as good as mine—say 1 bed per every 70 inhabitants. Obviously it is not more beds we want but better beds properly located.

These figures are only presented to indicate that yours will be largely an office and hospital practice. This movement of the population into hospitals is occasioned by several factors the relative force of which is difficult to appraise. Often hospitalization is necessary but the virtual disappearance of domestic help in the homes has made it extraordinarily difficult to supply adequate care therein even for minor ailments, and the building of thousands of houses of minimum size will inexorably squeeze the old people out.

Trying as I am to picture what is before you, I can't omit financial considerations. It may be more difficult for you than for your predecessors to attain financial security. The life of a doctor is not an easy one. He wears out like everybody else. He may die suddenly and leave his family in the lurch. He must save against the inevitable rainy day. But to save now with the high income taxes, not exacted of the previous generation of physicians and surgeons, is an uphill task indeed. And the income from investments is only about half of what it used to be so that twice as much must be set aside.

Professional fees will be increased, as is only natural with the rising cost of living and less charity work will be done, for there will be fewer people unable to pay and more of them will be cared for at Government expense. But whoever is sick, and wherever they are, yours is the privilege of attending them.

There is no doubt that the average income of doctors will increase. The national budget has increased in the space of a few years from about 75 to 200 billions of dollars. More will be spent for medical service than ever before. Since the number of doctors has not increased in anything like this proportion, the income per doctor will expand. You will work more on salary than the passing generation did, and you want to know where it will come from.

One does not need to be a Drew Pearson to predict that an increasing fraction of salary will come from tax money. In these 24 years from 1920 to 1944 the number of Government controlled hospital beds has been increased by 377,667, and the number of non-government controlled beds has been increased by only 66,508. Government, whether federal, state or municipal, is moving in and the end is not yet.

In most city hospitals the city fathers accept as a matter of course the voluntary service without pay of leading physicians and surgeons. Except for the internes and residents, these public-spirited doctors practically run the hospitals in a professional sense. The excuse that they do so because they want to gain experience thereby reminds me of inadequately paid professors in universities. It is said that they, likewise, choose a career with little financial gain, because their return is of another sort, satisfaction in their work. True, but the classical definition of a university professor still holds—"one who spends half his life cultivating good tastes and the other half denying them." There is a feeble movement to increase professors' salaries and a few pioneer city institutions now pay visiting physicians and surgeons. I am confident that this latter action will become the usual custom in your time, and the Veterans Administration pays and pays generously.

Socialized medicine is not new. It can be said to have started in England in the Elizabethan era in the recognition of a feeling of public responsibility for the medical care of indigents. In this country most tuberculosis and mental hospitals have long been under government management. The U. S. Public Health Service is in complete charge of quarantine arrangements, supplies medical care to many groups of persons including seamen on all vessels of U. S. Registry, inmates of all federal penal and correctional institutions and it discharges numerous other essential activities. Anybody in doubt of the vast power now vested in the U. S. Public Health Service should consult Public Law 410 of the 78th Congress. And I have alluded to the tremendous increase in government controlled hospital beds.

What is new is the realization by the public of the magnitude of the task before us. Let me mention one by one certain statements made in testimony before various committees of the U. S. Senate chiefly in answers to questions by Senator Claude Pepper.

1. At least 40 per cent of 22,000,000 men of military age were found unfit for military duty—that is between 8 and 9 million.

2. 33 per cent of all applicants in a year for enlistment in the Women's Army corps were rejected.

3. Of 150,000 young people examined in 1941, 85 per cent needed dental care and many others medical aid.

4. A U. S. Public Health Survey in 1935 revealed that more than 23,000,000 country people had chronic disease or physical impairment.

Brought to our notice very clearly is the inequality in opportunity for health of country and city dwellers.

1. 5,000,000 rural homes need sanitary privies and more than 846,000 rural homes are without any toilet facilities whatsoever.

2. In 1943 only half of the births in rural areas took place in hospitals. In large cities over 90 per cent were in hospitals. Almost 600,000 rural mothers were delivered in their country homes, 160,000 without help of a doctor.

3. Rural areas are handicapped by having fewer doctors per population and far less adequate hospital facilities, also per population, than the cities. In 1941, 71 per cent of certified pediatricians were located in cities of 100,000 or over in which were present less than 25 per cent of children under

5 years of age. Stated differently, more than 75 per cent of our young children are handicapped by this inequality. That the situation grows steadily worse in rural areas is evidenced by the situation in North Carolina. Polls of young army and navy doctors indicate that 87½ per cent intend to turn their backs on rural areas.

In my opinion Surgeon General Parran's statement that "the democratic goal is equal opportunity for health" is right. Mark well these words for the public is aroused, and legislation in Congress has but one purpose—to approach this goal as closely as possible realizing that actually it is unattainable.

Certainly the old "pay as you go" system often results in not going to the doctor. In low income groups, a serious operation requiring hospitalization is a calamity. The Blue Cross, very properly encouraged by the medical profession, has now 16,000,000 members. This usually provides only hospitalization, not payment of doctor's fees; but you will see it extended. Somewhat similar to Blue Cross are several Prepayment Plans which do supply doctor's fees.

The Veteran's Administration is a large question mark. We have had 4,224,500 in the armed services in World War I and 13,273,932 in World War II. Somewhat over 17,000,000 is a conservative estimate of potential veterans. Since June 7, 1924 hospitalization has been authorized for all veterans irrespective of the origin of their disability. Home visits to veterans have been included since 1932. The dependents of World War I veterans are included, and this privilege probably will be extended to those of World War II. In the past, veterans have not always availed themselves of medical service provided by the Veteran's Administration. With the great improvements in the Veteran's Administration confidently expected, it will ultimately supply medical care to a large fraction of the population.

And what will be done for the remaining millions especially the 75 per cent of our children in rural areas handicapped in respect to medical service; and for old people who are given cash benefits, which soon find their way into other hands eager to receive them before use for medical care? We think now in billions, and billions will be poured out.

Some kind of federal organization is necessary. There is but little hope that voluntary forms of health insurance will entirely suffice. Voluntary saving by individuals in food consumption is of doubtful value in freeing essential food stuffs for starving millions abroad. Voluntary enlistment in the armed forces was insufficient to bring victory. In this war against disease it would not be right to leave persons ignorant of their own medical needs and unable to pay for medical aid, to the individual charity of public spirited laymen and doctors.

There is widespread fear of governmental regimentation and red tape in medicine. But our government is as good as we make it. We can't fold our hands and passively wait for improvement. You begin your careers during a social revolution which, however, is peaceful and has for its purpose in medicine this equal opportunity for health. You must be the leaders—not hold back and let others do it. You are also imbued by your teachers, as is the American public by the war, with an appreciation of the value of research.

I want to say a few words about research. The impulse to research springs from an almost sublime discontent with things as they are, a determination to learn more and to do the job better. It is not limited to the privileged few with the support of fine laboratories. It is for all of you to approach each and every patient as a human problem which becomes the more interesting the further you progress. Every good clinician is an investigator of high order. By careful research, he sifts fact from fiction. His records are meticuously kept. His knowledge of human nature is second to none, his sympathy all embracing and his judgment sound.

A new spirit is abroad in the land. I have lived in the period of guerrilla warfare on the unknown in medicine. You are entering on the period of organized research. The genius of the American people for organization in industry has been proved. The benefits that organized medical research will bring to humanity may be beyond our wildest imaginings. You are going to see things happen and happen quickly. The American Cancer Society is on the march. Legislation on the proposed National Science Foundation may soon be completed. It may usher in a new era.

The great statesman, Benjamin Disraeli, once said: "The health of the people is really the foundation upon which all their happiness and their power of state depend."

Your service to our nation is second to none. But our ambition for health is by no means limited to these United States. We want mankind everywhere to share in benefits from the advancement of medical science. Improvements in health are prerequisite to rise in standards of living, increase in purchasing power and international trade and world fellowship. American medical men, with their demonstrations of how health conditions can be improved, are the very best ambassadors of good will, welcome everywhere.

Lastly at home and abroad, doctors are trusted in matters of life and death. Confidence in their judgment and integrity places them in a position of great influence for good. They know humanity as no others do. And the problems now of first importance require teamwork both at home and abroad. Your great task is not only to prevent disease and to heal the sick; but, also, to promote the brotherhood of man everywhere. Yours will be lives of high adventure facing the future resolutely. Bon Voyage and Happy Landing!

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LARGE DOSES OF VITAMIN D MAY CAUSE DEATH BY CALCIFYING TISSUES

Vitamin D in massive doses may cause death. It produces cell injury followed by calcium deposition, according to two physicians who report the case of the only female adult known to have died as the result of this calcifying action.

Writing in the April 27 issue of The Journal of the American Medical Association, Jere M. Bauer, M.D., Instructor in Medicine, University of Michigan Medical School, and Richard H. Freyberg, M.D., Associate Professor of Clinical Medicine, Cornell University, and Director of the Department of Internal Medicine, Hospital for Special Surgery, New York, say that "In the human being death may occur, even in the adult, as a result of vitamin D intoxication causing calcification of organs and arteries."

Metastatic calcification results from the deposition of lime salts in a tissue or part at the same time that marked decalcification of the bones is taking place. Most previously reported cases were boy infants from 4 to 18 months old. The vitamin D preparations given to them had included simple fortified cod liver oil, ultraviolet irradiated ergosterol which comes in a crystalline form and electrically activated vaporized ergosterol.

The most frequent symptoms of vitamin D poisoning are loss of appetite, nausea and vomiting, diarrhea, muscular weakness, lassitude and headache.

The kidney seems to be the most vulnerable of any tissue to the calcifying action of vitamin D. However, the lungs, stomach, arterial vascular system and myocardium or heart muscle are also involved, according to Drs. Bauer and Freyberg.

Citing the work of other investigators, the authors point out that the "factors which influence the toxicity of vitamin D are the dose per unit of body weight, the route and duration of administration, the composition of the diet in regard to the mineral and organic contents, the state of the alimentary tract, species susceptibility, age, preexisting pathologic conditions, the vehicle in which the vitamin is administered, the state of the endocrine system, the purity of the vitamin preparation, the source of the vitamin and other factors not yet recognized."

In recent years large doses of vitamin D preparations have been prescribed for the treatment of a wide variety of diseases, including arthritis, hay fever, vitamin D deficiency, psoriasis, a skin disease, acne, and trichonosis, a disease of the hair.

In conclusion Drs. Bauer and Freyberg say: "It is regrettable that . . . these potentially toxic preparations . . . have been sold to the public without need for prescription."

Brucellosis*

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Brucellosis is defined as "acute and chronic disease of varied duration with protean manifestations, characterized by fever, weakness, sweating and aches, caused by a general infection with a member of the abortus group of micro-organisms"(1). Brucellosis is also known as Undulant Fever, Malta Fever, Goat Fever, Bang's Disease, Infectious Abortion of Domestic Animals, Dust Fever, and Mediterranean Fever. Charles Nicholle wrote "Mediterranean Fever is in the course of evolution and is tending to become chronic. It is a malady which on account of its manifestations and chronicity will become one of the most common and stubbornest diseases. Mediterranean Fever is a disease of the future"(2). It is the purpose of this paper to present a general review of the literature and a brief report of my investigation of the disease, brucellosis.

The Micrococcus melitensis was isolated by Col. David Bruce from the spleen of a patient who died of Mediterranean Fever in 1887. In 1905, Zammit, a member of the Mediterranean Fever Commission, discovered that the chief host of the organism is the milch goat. The organism appears to localize in the udder, spleen, and lymph nodes of the goat, giving rise to an interstitial mastitis and splenic lymphadenitis. In 1895 Bang, of Denmark, isolated Bacillus abortus from the placenta of aborting cattle. Evans, in 1918, reported the close relationship of these organisms, and Meyer and Shaw suggested the name Brucella to distinguish them from the genus Bacterium. Bacteriologists recognize three varieties: Brucella melitensis, Brucella abortus, and Brucella suis, named for their most frequent hosts, goats, cattle and swine. All three varieties have been isolated from naturally infected human beings.

The disease is of world-wide distribution and is endemic in areas where it is prevalent in the domestic animals. In the United States it was reported between 1905 and 1924 chiefly from Arizona, New Mexico and Texas. Since then cases have been reported from most of the states and in 1929 the largest incidence seemed to be in Iowa. As stated in the United States Public Health Study of Brucella infection in Iowa: "Many cases have been found in areas in which an active interest has been displayed in obtaining an accurate recognition of the disease"(3). In the eastern states human brucellosis, may be correlated with the incidence of bovine infection, but in the midwest the porcine variety is the most important.

Brucellosis involves young adult males. Cases are reported less frequently in females and very rarely in children. They are closely related to occupation, the incidence being highest in packing house workers and high among farmers. Brucellosis is primarily a disease of cattle, hogs and goats, but other animals and foul, horses, dogs and chickens may be infected. Human cases have been traced to all these sources. but are not reported traced to other human cases or human carriers. Bacteriologists and students working with the organisms in the laboratory have been infected. The mode of transmission has been proven to be not only by ingestion of the organisms, but also by cutaneous contact with infective secretions or tissues.

The incubation period is very variable and may be prolonged. It has been variously estimated at 10 days to two months, five to fifteen weeks in naturally infected cases. In a series artificially infected the incubation period ranged from 10 to 28 days.

The pathology is based on postmortem findings on fatal cases. Few gross changes have been observed except enlarged spleen and lumph nodes. Microscopic findings reported, include reticuloendothelial hyperplasia of the lymph nodes, centrolobular necrosis and degeneration of the liver, interstitial pancreatitis, myocardial degeneration and lymphocytic infiltration in the brain.

Clinically, "there is no fever so irregular in its course and symptoms. Cases can be grouped into four classes, fatal, undulant, ambulatory and chronic. Fatal cases are rare amounting to only 1% or 3% of the total. The undulant type is characterized by periods of gradually increasing fever each day followed by gradual decreases and a series of such waves, each phase being ten to fourteen days in duration. Ambulatory cases occur in which the patients are not sick enough to stop work. Chronic brucelosis presents the greatest problem of diagnosis.

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*Paper presented before the Lancaster County Medical Society, September 15, 1945, with the addition of Table 4, the results of tests done on September 19, 1945.

†All blood agglutinations and opsonocytophagic tests were done by the State of Nebraska, Department of Health, Division of Laboratories, under the direction of L. O. Vose, Bacteriologist. Thanks are also due the University of Nebraska, Department of Animal Pathology, Drs. L. Van Ess and L. V. Skidmore, who did some of the cultures; Nebraska Wesleyan University, Department of Physical Education for Women, Mrs. Clara Riesland Brandt, Director, for cooperation in the study of the students; Dr. Frank Tanner, Pathologist, who prepared color photographs of skin tests and opsonocytophagic slides.

The most frequent symptoms are weakness, sweating and chilliness. Constipation, nervousness, backache and insomnia are next in frequency. The most frequent signs are weight loss, pallor and fever. Spleen and superficial lymph nodes may be palpable. Skin rashes are reported. In Iowa many examining physicians reported, "I found absolutely nothing."

For the diagnosis we must depend on the laboratory. (1) The organism may be obtained by culture from the blood, urine, uterine secretions, stools. The organism is difficult to isolate from acute cases and infrequently obtained from afebrile chronic cases. (2) The blood may show agglutinins for Brucella. These appear 10 to 14 days after exposure and may remain for long periods of time after recovery. The agglutinins are commonly produced by skin tests so that the blood for agglutination should be drawn before the skin test is carried out. Cases of chronic brucellosis often do not show any agglutinins in the blood even at the time the organism is cultured from some localized infection such as joints or gallbladder. Evans states that 46% of cases of chronic brucellosis have a negative blood agglutination(4). (3) The opsinocytophagic test described by Huddleson. The test consists of mixing citrated blood of a suspected patient with a freshly prepared suspension of Brucella organisms. A film of the blood-Brucella mixture is stained with Hasting's stain and the number of Brucella in each of 25 polymorphonuclear neutrophils is counted. Each cell is recorded as:

"No," when no phagocytosis occurs.

"Slight," when from one to 20 bacteria are found in the cell.

"Moderate," when from 21 to 40 bacteria are found in the cell.

"Marked," when the number of bacteria in the cell is above 40.

These data are interpreted by Huddleson to distinguish susceptible, infected and immune patients according to the table. (Table 5). Carpenter reports that it distinguishes the sensitized from the unsensitized patient and that the same type of information can be obtained more simply by the agglutination and intracutaneous tests(5). The test presents technical difficulties, but my experience has been that it is useful.

The intracutaneous tests are carried out using either a diluted vaccine or other substances prepared from the Brucella cells, such as Huddleson's Brucellergen. The significance of the test is the same as that of the tuberculin—a positive test denotes only that the patient has been sensitized at some time by contact with the infectious organism. A positive reaction persists for years and it is possible that a reversal never occurs.

Treatment is complicated by numerous difficulties, primarily the difficulty of diagnosis, and the lack of criteria for cure. No medication has yet been proven specific for Brucella. In the acute stage, general care, and bed rest are important. In chronic cases vitamin B and thyroid are useful. Numerous vaccines, sera and toxic filtrates have been recommended. As most of these cause a recrudescence of fever and operate by shocking the patient, they should be used cautiously. The sulphonamides have been disappointing as was penicillin. The new streptomycin is being used in institutions where it is available in an effort to evaluate its effects on this disease.

Prevention of the disease is to be effected by pasteurization of milk and cream, eradication of brucellosis in domestic animals, prophylactic vaccination of persons coming in contact with the disease (laboratory workers, veterinarians, packing house workers) and by public health education.

A series of skin tests on office cases began my investigation of brucellosis. Table 1 summarizes the results of the first 102 skin tests. The first 78 of these were done with undulant fever vaccine diluted 1:10 with normal saline; the remaining 24 tests with brucellergen. The patients were women with indefinite complaints and the comparatively high percentage of positive reactions may be correlated with the fact that they were not unselected cases.

TABLE 1.

SKIN TESTS ON OFFICE CASES

E (erythema, Negative)		53
2 plus		28
3 plus		9
4 plus		6
5 plus		1
Result unknown		5
Total		102
Total Negative	53	54.4%
Total Positive	44	45.5%

Students entering the Nebraska Wesleyan University in September were to be skin-tested for tuberculosis and it was decided to do tests for brucellosis at the same time. The results of the parallel tests are shown in tables 2 and 3. Close scrutiny of table 2 will reveal that the girls are more frequently sensitized to tuberculosis, the boys to brucellosis. Table 3 summarizes the totals and demonstrates that in 143 completed tests, 18 students or 13% were positives to brucellosis. Nine days later blood was taken from these reactors for agglutination and the opsonocytophagic tests. The results of these tests appear in table 4. The opsonocytophagic tests are interpreted by Huddleson according to table 5.

TABLE 2.
WESLEYAN SKIN TESTS

	Girls			Boys		
	Positive	Negative	Incomplete	Positive	Negative	Incomplete
Tuberculosis—						
1st dose	1	--	2	1	--	1
2nd dose	23	73	6	5	27	8
Total	24	73	8	6	27	9
Brucellosis—						
Brucellergen	6	26	--	3	9	--
Undulant fever vaccine	5	69	--	4	21	--
Total	11	95	--	7	30	--

TABLE 3.
WESLEYAN SKIN TEST TOTALS

Tuberculin—	Positive	Negative	Incomplete
1st dose	2	---	3
2nd dose	28	100	14
Total	30	100	17
Brucellergen	9	35	---
Undulant fever vaccine	9	90	---
Total	18	125	---

Tuberculosis—130 tests complete 23% positive
Undulant fever—143 tests complete 13% positive

TABLE 4.
OPSONOCYTOPHAGIC TESTS ON WESLEYAN STUDENTS

					Results			
Patient	Home		Skin Test	Titre	No	Slight	Moderate	Marked
M	Omaha	U	2 plus	1/20				100%
W	Geneva	B	5 plus	1/80				100
F	Crete	B	2 plus	1/20				100
W	York	B	2 plus	Neg.				100
B	Fairbury	B	2 plus	Neg.				100
B	Murray	U	2 plus	1/40				100
K	Alliance	B	2 plus	Neg.				100
H	Eustis	B	2 plus	1/80				100
G	Rep. City	U	2 plus	1/80				100
W	Arcadia	B	3 plus	1/20			50	50
J	Palisade	U	2 plus	1/80				100
Y	Alliance	U	2 plus	Neg.	10	15	70	5
C	Hastings	B	3 plus	Neg.		20	20	60
V	Franklin	U	2 plus	Neg.		Not done		
S	Scottsbluff	U	2 plus	1/40			10	90

TABLE 5.
OPSONOCYTOPHAGHIC POWER

Agglutination Test	Allergic Skin Test	Opsonocytophagic Power of Blood	Status Toward Brucella
—	—	Zero to 20 per cent of cells, slight	Susceptible
—	+	Zero to 40 per cent of cells, marked	Infected?
+	+	Zero to 40 per cent of cells, marked	Infected
—	+	60 to 100 per cent of cells, marked	Immune
+	+	60 to 100 per cent of cells, marked	Immune

All the skin test reactors were studied with the aid of a Brucellosis Work Sheet (table 6), a composite of the Nebraska State Department of Health, report of Investigation of Undulant Fever case, and signs and symptoms suggested by the Iowa report with a few additions, and an expanded list of laboratory tests. 11 cases not among the school group had positive agglutinations and they may be studied with the work sheet as follows: 9 were house wives, one a packing house employee and one an infant. 9 were female, two male. The age varied from 18 months to 54 years. The most common symptom was weakness, reported by 9 of the 11. Next came sweating, chilliness, constipation, and nervousness reported six times each by the 11 cases. The most common signs were weight loss (7 cases) and colostrum-like breast secretion (7 cases). Next came pallor noted in 6 cases. Only two had fever or palpable spleen and 1 cough.

TABLE 6.
BRUCELLOSIS WORK SHEET

Patient: 11 patients Pos. Agglut.
Occupation: 1 infant; 1 Lincoln packing house
Sex: F 9; M 2
Age: 18 months to 54 years
Date of onset:
Symptoms:
  9 Weakness
  6 Sweating
  6 Chillness
  1 Rigors
  3 Scotomata
  1 Other eye signs
  1 Leg cramps
  4 P General aching
  3 A Headache
  5 I Backache
  2 N Back of neck
  4 Joints
  4 Abdominal pains
  2 Breasts
  4 G Anorexia
  6 I Constipation
  4 Nausea
  2 Vomiting
  5 Insomnia
  6 Nervousness
  4 Tremor
Signs:
  7 Weight loss
  2 Temperature
  Localized infection
  7 Colostrum
  6 Pallor
  3 Leg veins—telangectases
  varices
  2 Spleen
  1 Cough
Laboratory Tests (Date and Result):
  Skin Test—9 positive, 2 not done
  Blood Agglutination—11 positive
  Blood Culture—5 negative, 6 not done
  Opsonocytophagic—see table 8
  R.B.C.—7 over 4,000,000
  W.B.C.—5 less than 7,000
  Hb.—6 were 13.5 gm. or more
  Sed. Rate—3 less than 10 mm.; 6 between 10 and 20
Contacts with Livestock:
  1 packing house worker; 1 canned pork
Items of Food Handled or Eaten:
  Milk (Raw)—7 cases
  Milk (Past.)—
  Cheese—
  Butter—1 case

The first laboratory test, the skin test was positive in 9 cases. The two that were not skin tested had significantly high agglutination titers and other evidence of the disease. The blood agglutinations were obtained in the various titers and in various correlation to the skin tests as recorded in table 7. It is unfortunate that 6 of the cases had no agglutination test before the positive skin test.

TABLE 7.
BLOOD AGGLUTINATION TITERS

2 not skin tested
  1/40, 1/320
3 negative before skin test
  1/20, 1/80, 1/160
6 not done before skin test
  1/20, 1/20, 1/40, 1/40, 1/320, 1/1280

Blood cultures were done on 5 cases and were negative. For the results of the opsonocytophagic tests see table 8.

TABLE 8.
OPSONOCYTOPHAGIC TESTS

			Opsonocytophagic Power of Blood				
Patient	Skin Test	Titer	No	Slight	Moderate	Marked	Status
D.S.	Positive	1/40		12	48	40	Infected
G.L.	Positive	1/20		84	16		Infected
D.K.	Positive	1/20	4		4	92	Immune
P.P.	Positive	1/640		4	80	16	Infected
C.S.	Positive	1/40			72	28	Infected
P.T.	Not done	1/320			10	90	Immune
J.T.	Positive	1/160			15	85	Immune
M.G.	Positive	1/80			90	10	Infected
B.L.	Positive	1/20		10	80	10	Infected
T.C.	Positive	1/320		80	20		Infected
A.I.	Not done	1/40			10	90	Immune

The routine blood counts revealed that 7 of the 11 had red cell counts over 4,000,000 and 6 had a hemoglobin of 13.5 gm. or more. Thus the pallor was not associated with a marked anemia. The white cell count is characteristically low, 5 were less than 7,000. The differential blood counts showed a lymphocytosis(6) of over 40% in 7 cases, 2 did not have a differential count reported and 2 had less than 40% lymphocytes. Eosinophils were frequent, 1 case had 8%; 1 had 7% and 2 cases had 4% eosinophils. The sedimentation rates were not remarkable. Three cases had rates less than 10 mm., 6 were between 10 mm. and 20 mm.

The source of infection so far as it could be traced were contacts with livestock in 2 cases, the packing house worker and one house wife who canned pork. Use of raw milk was reported by 7 cases, 1 traced the infection to country butter and one gave no history of exposure.

COMMENT

This review will serve to demonstrate a small but significant infection in this area. Chronic brucellosis, the sequelae and localized infections merit further study, particularly the mastitis, sterility, arthritis, and central nervous system involvements. The prognosis for life is excellent, recovery is almost inevitable, but the morbidity is unusually great(5).

BIBLIOGRAPHY

1. Amoss, Harold L.: Textbook of Medicine, edited by R. L. Cecil. Sixth edition, p. 234, 1943.

2. Huddleson, I. Forest: Brucellosis in Man and Animals. Commonwealth Fund, 1943.

3. Hardy, A. V.; Jordan, C. F.; Borts, I. H., and Hardy, G. C.: Undulant Fever with Special Reference to a Study of Brucella Infection in Iowa. Bulletin No. 158, National Institute of Health, 1931.

4. Evans, A. C.: Studies on Chronic Brucellosis. IV. An evaluation of the diagnostic laboratory tests. Public Health Reports, vol. 53, p. 1507, 1938.

5. Carpenter, Charles M.: Brucellosis. Medical Clinics of North America. New York Number, 1943.

6. Spink, Wesley W., and Hall, Wendell H.: The Diagnosis and Treatment of Brucellosis. Medical Clinics of North America. New York Number, 1945.

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LACK OF HEART PAIN IN NEGROES DECEIVING IN DIAGNOSIS

Coronary thrombosis, one of the leading causes of death in this country, is as common among Negroes as it is among white people, according to William S. Hunter, M.D., of Louisville, Ky. However, since the Negro rarely has pain it is not usually diagnosed as heart disease before death.

Writing in the May 4 issue of The Journal of the American Medical Association, Dr. Hunter says that "it seems likely that between 2,800 and 4,600 Negroes in the United States are killed every year by myocardial infarction and that many more are disabled by the condition."

Dr. Hunter, who is from the Departments of Internal Medicine and Pathology, the University of Louisville Medical School, suggests that the absence of pain may be due to the fact that high blood pressure had been found to be much more common and much more severe among Negroes than among white people. This condition probably causes an enlargement of the secondary arteries through which the blood is detoured to the heart muscle. Thus pain is eliminated for it occurs only when some part of the heart muscle is deprived of its necessary blood supply.

Coronary thrombosis is usually associated with prolonged pain and with permanent damage to the heart during attacks. There is always shortness of breath and there may be some coughing because of water accumulating in the lungs as a result of the impaired circulation. Also present is a rapid and irregular pulse and a fall in blood pressure.

The Cross-Eyed Child*

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Early recognition and proper treatment is of paramount importance in the management of squint. The child with an eye that turns in is not only handicapped cosmetically but functionally and psychologically as well. Convergent squint is of frequent occurrence, shows no predilection as to sex and demonstrates a strong hereditary tendency.

Hippocrates(1) and Galen(2) recognized various types of strabismus and described the ocular muscles fairly well. It was not, however, until Donders(3) established in 1864 the definite relationship between squint and hypermetropia that a modern and more accurate conception evolved.

This paper will be limited to the discussion of internal nonparalytic squint.

ETIOLOGY

The etiology of squint is a very much discussed subject. The theories of causation may be roughly divided into: (1) The muscular theory, which attributes the defect to an overacting muscle. It now seems plausible to believe that the overacting muscle is the result of, rather than the cause of, the squint. If this is not true then why do the eyes often straighten when the child is placed under general anesthesia or why does a high percentage straighten under the affect of atropine and glasses? Furthermore, why does it take on the average three years, the usual age that internal squint is noted, for the overacting muscle to find itself so strong? (2) The accommodative theory of Donders(3) contends that internal squint is the result of convergence being overly stimulated by the spasm of accommodation accompanying extreme hyperopia. This theory stands up very well inasmuch as nearly 30 per cent of eyes can be straightened by properly fitted glasses alone. It fails however, to explain the internal strabismus cases that are present at birth and others that have no refractive error or are even myopic. (3) The fusion theory of Worth(4) assumes the presence of a center in the brain capable of uniting the retinal images from each eye into one mental image. Squint according to this theory, results as a want or improper development of this fusion faculty. The weak point in this assumption is that most cases of internal squint develop after children have had the opportunity to enjoy binocular vision for two or three years. It doesn't seem entirely logical that fusion should suddenly break down after two or three years. It would seem rather that the fusion center would grow stronger with time and overcome nearly all obstacles except a frank paralysis of an ocular muscle.

Nearly every parent attributes the squint in the child to a fright, fall, spasm, measles, mumps or whooping cough, etc. These cannot be considered as causes although they may act as a contributing influence.

SYMPTOMS

The symptoms of internal squint are obvious. The mother usually notes that the child when between two and four years of age, has a tendency for one of the eyes to turn in. This crossing is particularly noted when the child is tired, ill or when looking at something very near. The condition may be for a time fleeting and may be recognized first by a friend or relative who has not become accustomed to the appearance of the child and scrutinizes it more carefully than the parent.

A very mild squint may be recognized only after a pre-school or school visual examination reveals an amblyopic eye or the eye specialist consulted discovers a reduction of vision in one of the eyes and detects the strabismus.

DIAGNOSIS

The diagnosis can usually be made by careful observation of the child, checking the vision, ocular motility, use of the cover test and cycloplegic refraction.

If the turning in of the eye is obvious or becomes so when one of the eyes is covered and a flashlight is fixed at about 15 inches and the ocular motility is normal a diagnosis of internal nonparalytic squint may be made. The vision if carefully checked will usually be found in the neighborhood of 20/200 in the non-fixing eye. If the vision is 20/20 in each eye and the squint is very obvious an alternating internal squint should be suspected. The vision can be easily obtained on an E chart after the child is from three to four years of age. The examination can be made easier if the mother is instructed to train the child at home with a cardboard disc or square upon which she has printed a large letter E.

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* Read before Omaha Mid-West Clinical Society, October, 1945.

If the squint appears obvious but no turning of the eye is obtained upon fixing a light and covering one eye and then the other a wide angle kappa or an epicanthus must be suspected. The epicanthic lid fold causes the eye to disappear more quickly than appears normal and hence a condition of squint is only apparent. A wide angle kappa due to a misplaced macula causes the eye to turn in abnormally in order to achieve central vision. No turning is present in this condition with the cover test inasmuch as macular vision is being maintained with each eye simultaneously.

The fundus of each eye should always be carefully inspected inasmuch as intraocular disease such as glioma of the retina has been reported(5) as first having been manifest by the production of an internal squint.

The measurement of squint may be carried out by the use of prisms, the perimeter or by noting the light reflex from the anterior surface of the eye as obtained by a flashlight held at twelve inches. Loose prisms may be placed with the apex in the direction the eye is squinting and gradually increased in strength until movement is neutralized when the fixing eye is covered and the child looks at a nearby light. The amount of squint may also be ascertained by having the child fix the target on a perimeter and then the examiner bring a light along the arm of the perimeter until the light reflex appears in the center of the cornea of the squinting eye. The simplest but rather inaccurate method (Hirschberg(6)) of measuring squint is by observing the position of the reflex on the eye produced by the light of a flashlight held at 12 inches. If the pupil is moderately well dilated (about 3 mm.) and the reflex is nearer the center than the pupillary margin the squint is about 5 degrees, at the pupillary margin 12-15 degrees, half way to the limbus 25 degrees, at the limbus 50 degrees and beyond the limbus 60 to 80 degrees. Conversion to prism diopters may be made by bearing in mind that each degree of squint is roughly equivalent to two prism diopters.

TREATMENT

Early recognition and correct diagnosis is extremely important in the treatment of squint. Particular attention must be paid before and at about the age of three when the binocular reflexes of the child are forming. When there is a history of squint in the family an estimate of the refraction should be made as early as 12 months. Cooperation between the family doctor or pediatrician and the ophthalmologist is of great importance.

The management of squint is comprised of: (1) optical treatment; (2) orthoptic training and (3) surgery.

The optical treatment consists of refraction while the eyes are under the influence of atropine. The refractive error thus can be accurately estimated even in the very young by means of the retinoscope. Full correction is given as indicated by the atropine refraction. If the eyes are straight for distance while wearing the correction but the squint reappears when near objects are observed bifocal glasses should be prescribed. As a rule if atropine abolishes the squint glasses will correct it.

Orthoptic training consists first of combating the amblyopia which is almost invariably present in the squinting eye. This may be done by occlusion of the fixing eye by means of a patch held by Scotch tape. In many instances atropine may be instilled and a plain or concave lens fitted before the non-squinting eye. An opaque disc rarely is satisfactory inasmuch as the child will peek around it. Occlusion must be carried out for at least four hours daily or better still total occlusion during the entire waking hours. Frequent checks of the vision must be done and when the vision in the amblyopic eye approaches 20/50, and the child if old enough to cooperate stereoscopic training may be instituted. Fusion is thereby stimulated and false projection if present, combated. Many different apparatuses and techniques are employed in developing fusion. Trained certified orthoptic technicians are becoming more available and if conected with an orthoptic clinic the results obtained are uniformly better than when exercises are carried out in the private office under the supervision of a disinterested untrained nurse. The use of a stereoscope at home if properly employed, is of great value.

If orthoptic training is not available, or if the child is too young to cooperate or if after a year's use of glasses and occlusion the condition appears stationary, surgical correction becomes the next logical step.

Surgery should be carried out at an early age—definitely before the child is of school age. Not only is a good cosmetic result often obtained by surgery at an early age but the eyes are placed near enough to parallelism to develop fusion or make possible the better stimulation of fusion by orthoptics. If false projection is present and cannot be broken up, one must be satisfied with a cosmetic result and in some cases considerably less.

The choice of a surgical procedure in convergent squint is dependent upon the degree of squint, whether it is greater for near than for distance and how much of the squint is corrected by glasses.

Children under twelve must be operated on under general anesthesia. Cracked ice in a rubber glove applied to the eye constantly for several days after the operation will reduce the postoperative swelling and echymosis.

The amount of surgical correction necessary must be estimated while the child is wearing glasses. If not, postoperative divergence may result when the needed optical correction is placed before the eyes.

The deviating eye should be operated on first in monocular cases. In alternators the eye which turns in longer on attempting to converge should be operated on.

When the deviation is greater for near than for distance the squint is of the convergence excess type and the internal rectus should be recessed as the primary procedure. The internal rectus only is recessed if the deviation is up to 15 prism diopters. Deviations of 12 to 25 prism diopters require recession of the internal rectus and resection of the external rectus.

When the deviation for distance is greater than for near divergence insufficiency is present. This type requires primarily resection of the external rectus of the deviating eye. This is true up to 12 prism diopters. Twelve to 20 prism diopters of divergence insufficiency requires resection of the external rectus and recession of the internal rectus muscle of the deviating eye. The amount of recession of the internal rectus should never exceed 5 mm. The resection of the external rectus may vary from 4 to 7 mm.

CONCLUSION

One must not be just satisfied in securing a good cosmetic result in cases of squint. A perfect cosmetic result if possible should be combined with a good functional result—that is the securing of adequate depth perception and the development of a satisfactory psychological viewpoint. The latter requires considerable time, effort and explanation first to the parents and secondly to the patient.

BIBLIOGRAPHY

1. Adams, Francis: The Genuine Works of Hippocrates. New York, William Wood and Co., Vol. 1, p. 217, 1886.
2. Shastid, Thomas Hall: Am. Ency. Ophth., Chicago, Cleveland Press, Vol. 11, p. 8605, 1917.
3. Donders, F. C.: Accommodation and Refraction of the Eye. London, J. W. Roche, p. 291, 1864.
4. Worth, Claud: Squint. Ed. 2, London, John Bale, Sons and Danielsson, Ltd., p. 54, 1905.
5. Morrison, W. H.: Bilateral Retinoblastoma Glioma); Preliminary Report of a Case. Nebraska M. J., 25:445-449 (Dec.) 1940.
6. Wheeler, M. C.: Objective Strabismometry in Young Children. Arch Ophth. 29:720-736, (May) 1943.

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THREE OUT OF FOUR PEOPLE HAVE ATHLETE'S FOOT

Dr. Jerome S. Peterson believes that three out of four persons have, or once had, athlete's foot, which is caused by tiny organisms called fungi.

The New York physician, writing in the current issue of Hygeia, the health magazine of the American Medical Association, says that these fungi follow the example of most germs and bacteria by liking heat and moisture. With the approach of summer, trouble begins for sufferers of athlete's foot. Dr. Peterson states:

"In a cold, dry place, the fungi wither away after a while, but when they are on feet which become overheated, and start perspiring, they flourish.

"The fungi usually are found in great hordes in public showers, gymnasiums and around the edges of swimming pools. Almost everyone has the fungi on his feet—yes, even people who have never had any symptom of athlete's foot.

"There are some cases where the infection isn't confined solely to the feet. The hands are the likely sites for this secondary infection, but occasionally the thighs and other parts of the body may be included.

"Athlete's foot fungi may be tiny, but they're remarkably resistant fellows, who have kept scientists guessing for about 25 years. No substance has been discovered which is guaranteed to cure every case of athlete's foot. The main drawback in this search is that it's not easy to discover a potion which will destroy the fungi without destroying the healthy foot tissue."

Tuberculomata of Liver with Case Report

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Omaha, Nebraska

Mr. J. J. C., age 33, a machinist, was seen on my service of the Medical Department, Union Pacific Railroad, for the first time in Septemer, 1938. His chief complaint was upper right abdominal and epigastric distress, without relation to kinds of food or time of eating. He had had no illnesses other than childhood diseases until June, 1930, when he began having abdominal discomfort, and in January, 1931, an appendectomy was done. His hospital record stated that the appendix was two inches long, slightly thickened with congestion of the vessels. From the time of the appendectomy he had periodic distress, variable in intensity in the upper abdominal region. At the time he consulted me this distress was becoming more constant and he was losing weight.

His physical examination was of interest due to the lack of findings as there was only tenderness on pressure over the upper right abdominal quadrant. There was a normal blood count, differential count, and serology. On x-ray study the lung fields were normal, and the gallbladder failed to empty after a fat meal and multiple opaque areas were seen in the liver. (Figure 1).

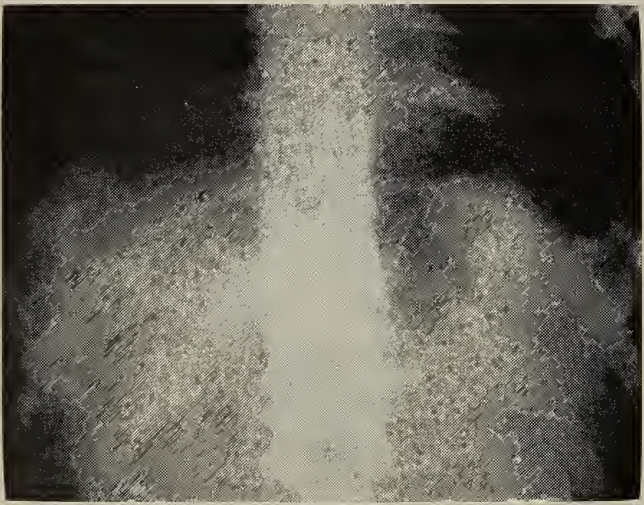

Figure 1. Non-functioning gallbladder and multiple opaque areas in the liver.

In November, 1938, the patient had severe pain over the gallbladder area and a mass was palpable. He had some increase in temperature for several days, but never was it over 100 degrees. The white count now was 8,800 with eosinophiles 3%, monocytes 5%, lymphocytes 10%, and neutrophiles 82%; of these 5% were staff cells and 77% segmented cells.

At this time I referred him to the hospital service. A five-inch incision was made through the right rectus muscle over the gallbladder area and about seven ounces of thick yellow pus was encountered, coming from underneath the liver, but the original focus was undetermined. A culture from this did not produce growth; smears were not stained for study. The patient was in the hospital several weeks when he was referred back to me for follow-up care of a draining sinus. On several occasions when irrigating the wound,I noticed small flakes of hard caseous artifacts.

February, 1939, another x-ray study was made with an opaque material injected into the sinus. (Figure 2). This was essentially the same as the previous film as there were no changes in the opaque areas throughout the liver. One of these areas appeared to be near or in the gallbladder.

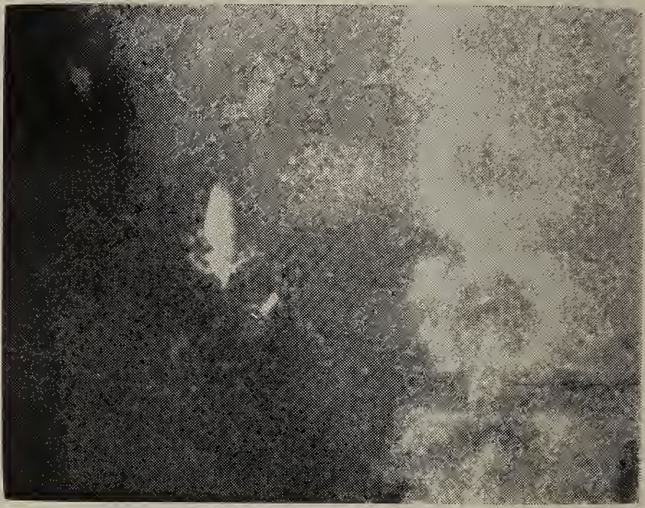

Figure 2. Sinus extending toward the gallbladder.

The patient was again sent to the hospital and an incision was made following the sinus which had been injected with methylene blue. A cystic tumor was removed from the edge of the liver, underneath the gallbladder; this specimen was lost and never examined by the pathologist. There was an uneventful recovery and he returned to work.

In August, 1941, the patient began complaining of distress and pain in the epigastric area and there was a palpable resistance over that region. At this time there was not an increase in temperature and the only blood change was a slight secondary

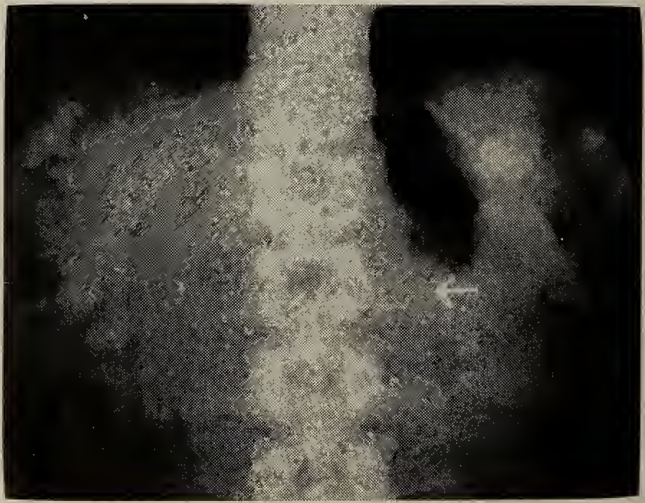

Figure 3. The large tuberculomata which was surgically removed.

anemia. From x-ray film, (Figure 3) it was felt the larger cyst was causing these symptoms and it was removed (Figures 4 and 5), from the margin of the left lobe of the liver. The pathologist now reported a cystic mass of tissue, irregular in shape, soft, friable and of a salmon color. On section it was cut with very little resistance and presented a surface caseous in character. The histological report was chronic caseous tuberculosis of the liver. Culture from the cyst did not produce growth.

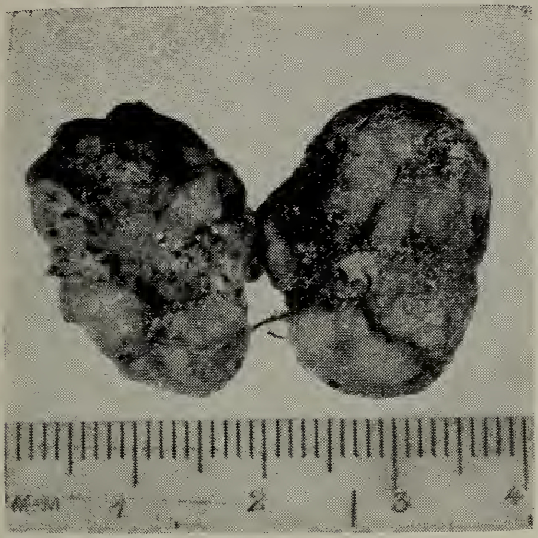

Figure 4. External surface of tuberculomata of liver.

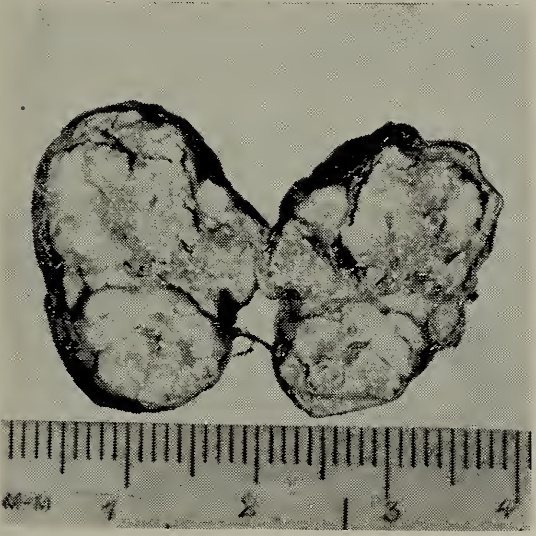

Figure 5. Internal cut surface of this tuberculomata.

Soon after this he again returned to work. He has gained weight and is at present in good health. From an x-ray film taken in November, 1941 (Figure 6), compared with one taken November, 1945 (Figure 7), it can be seen that there are new areas of calcification throughout the liver but several of those previously seen have disappeared.

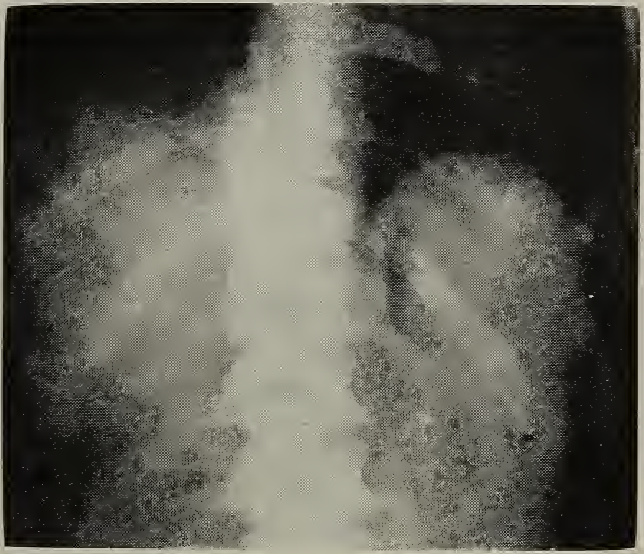

Figure 6. Showing the opaque areas soon after the second surgical removal of tuberculomata.

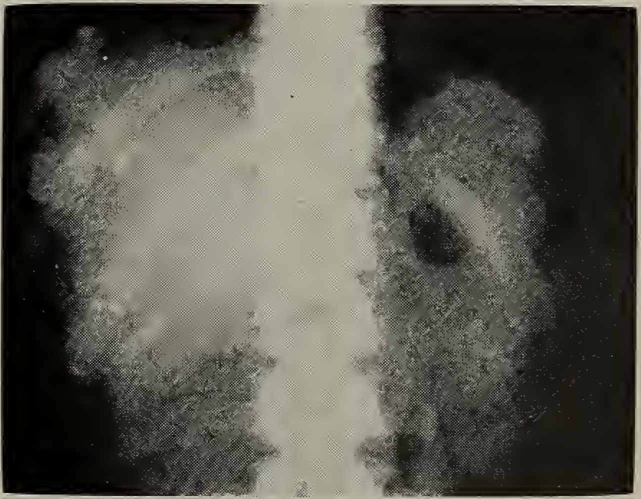

Figure 7. Taken November, 1945, showing changes as compared with Figure 6 taken November, 1941.

I am reporting this case because in searching the literature I found very few similar conditions. Harrell and Simpson(1) report a case of recurrent hyperpyrexia due to solitary tuberculoma of the liver and gave a review of the literature from which I quote, "A report of a similar case in which solitary tuberculoma was found in the liver was made by Mayo Robson in 1895. In this case the lesion was said to have been 'virtually shelled out of the liver substance' with subsequent recovery of the patient. Another similar case was mentioned by Weiss in 1935. One specimen of solitary tuberculoma of the liver is said to be in the Pathologic Museum of the University of Manitoba in Winnipeg, Canada; one other in the Museum of the Royal Infirmary at Sheffield, England, and a third, according to Rolleston and McNee, in the Pathologic Museum of the University of Birmingham, England." DeCrespingny and Clelland(2) give an autopsy report on a male, age thirty-six, in which they found primary multiple tuberculomata of the liver with degenerated hydatid cyst. Webster(3) also presents an autopsy report on an eleven-year-old girl having trichobezoar and multiple tuberculomata of the liver. There were also in this case similar lesions in the lungs and spleen. Rolleston and McNee(4) state that "this form of local tuberculosis in which the portal spaces and bile-ducts are not specially involved is rare, but is common in some animals." The liver is the most common, and in many cases, the only organ involved in avian tuberculosis and it is frequently found in bovines as large caseous masses. Rolleston and McNee⁽⁴⁾ cite from literature fourteen cases and describe two of their own of liver tuberculomata. In all but three of those tuberculosis was found in other organs.

It is impossible to make a prognosis in this instance as there is the possibility of further abscess formation from newly developing tuberculomata or a dissemination of the infection through the blood stream producing a generalized miliary tuberculosis. The patient at this time has no disability whatsoever, and pathology present is that found only on x-ray examination.

REFERENCES

1. Herrell, W. E., and Simpson, W. C.: Recurrent Hyperpyrexia Due to Solitary Tuberculoma of the Liver. J.A.M.A., p. 517, Aug. 6, 1938.

2. DeCrespingny, C. T., and Cleland, J. B.: A Case of Primary Multiple Tuberculomata of the Liver with a Degenerated Hydatid Cyst. M. J. Australia, p. 151, Febr. 10, 1923.

3. Webster, R.: Pathological Reports from the Children's Hospital, Melbourne. M. J. Australia, p. 20, July 2, 1938.

4. Rolleston, Sir Humphrey, and McNee, J. W.: Diseases of the Liver, Gallbladder and Bile Ducts. Third Edition, Macmillan, p. 377, 1929.

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PSYCHONEUROSIS OFTEN MISTAKEN FOR SHELL SHOCK

Bombs exploding near a person in the open will not damage the brain or the nervous system, according to a study made by Comdr. Robert S. Schwab, (MC), U.S.N.R., writing in the May 11 issue of The Journal of the American Medical Association.

Included in Comdr. Schwab's study are 350 patients observed in the Pacific theatre during 1944 and 1945. They were admitted to naval hospitals with a diagnosis of concussion of the brain. All had been near either a bomb or shell when it exploded.

The author states that over 90 per cent of the so-called air blast concussion cases are psychoneurotic states produced in men by exhaustion and anxiety. "There is no evidence from the observations that I made in these cases of damage to the brain or nervous system."

About 40 per cent of the men studied by the author complained of amnesia lasting anywhere from 30 minutes to 30 hours. It is this amnesia which has led to the belief that the brain is damaged. However, the amnesia occurred after the patient had heard the explosion and felt himself pushed down by its effect. In all cases in which drugs and hypnosis were used the memory was restored.

NICOTINIC ACID RELIEVES PATIENTS WITH SEVERE HEADACHES

Two New York physicians, writing in the May 11 issue of The Journal of the American Medical Association, report that nicotinic acid is highly effective for the relief of headaches of a persistent nature, such as migraine or severe idiopathic headaches which stem from an unknown cause.

Joseph W. Goldzieher, M.D., and George L. Popkin, M.D., from the New York City Hospital, Welfare Island, say that of 100 consecutive patients with severe headaches who received injections of nicotinic acid, 75 were completely relieved.

The patients had 100 milligrams of nicotinic acid in a salt solution injected into their veins. This was the standard dosage. In the average case from 30 to 45 seconds elapsed before the patient was aware of any effects, the doctors write. Then there was a feeling of warmth or heat with an accompanying flush. "Within three or four minutes the patient, though not comfortable, became accustomed to the heat, which gradually subsided in about 15 minutes and usually disappeared in 20 minutes to a half hour."

Nicotinic acid is a nutritional factor of the vitamin B complex, used in the treatment of acute pellagra—a vitamin deficiency disease. It is known to produce a dilatation of the blood vessels with an increase of blood flow to the brain.

Nicotinic acid has also been known to relieve malarial headache and sinus headache.

Proceedings of the Staff of Nebraska Methodist Hospital

JOHN R. SCHENKEN, M. D., Editor
Omaha, Nebraska

CASE 1. Squamous cell carcinoma of the cervix uteri complicated by malaria introduced by a transfusion from a returned veteran.

DR. HOWARD B. HUNT (Clinical History): This patient was a 50-year-old white female with squamous cell carcinoma of the cervix proved by biopsy. She had suffered repeated hemorrhages which had reduced her hemoglobin to about 50 per cent. A transfusion was given, the donor being a returned veteran from the South Pacific. She was given a primary course of deep x-ray therapy and radium during which time she showed an irregular febrile course from normal to 102° F. The patient was dismissed from the hospital for about ten days and she returned for further application of radium to the uterus about fourteen days after the transfusion. Within a few hours after the insertion of radium the temperature rose to 104° F. and the patient suffered severe chills. The radium was removed although neither Dr. McGoogan nor I felt that the fever was related to the radium application. A catheterized specimen of urine ruled out cystitis. The temperature subsided to normal but recurred twice at intervals of 48 hours. At this time it was apparent that the febrile course was suggestive of malaria and Dr. Schenken was called to see the patient in consultation. Examination of a smear of the blood established the diagnosis of malaria. Dr. Kirk outlined a course of treatment with quinine sulfate, 10 grains, four times a day for five days and then 5 grains four times a day for five days. The febrile course flattened dramatically under this treatment and she felt greatly improved although troubled somewhat by tinnitus caused by the quinine. I have asked Dr. Ralph Moore, recently returned from the South Pacific, to discuss the treatment of malaria as outlined by the Army Medical Corps.

DR. RALPH MOORE (Treatment of Malaria): The control and treatment of malaria has changed since the Army spent so much time in the Pacific. I will tell you briefly how it was done at the beginning of the war. For treatment, we gave 0.1 gm. of atabrine three times a day for two to five days. This was not effective. Ninety per cent of the troops had malaria in spite of this treatment following the Buna campaign. Consequently, this regime was changed. For the control of malaria, suppressive doses of atabrine of 0.1 gm. twice daily for a week prior to entering a malarious area and a 0.1 gm. dose daily thereafter as a maintenance dose was sufficient to prevent clinical malaria in about 90 per cent of the troops.

For uncomplicated malaria and parasitemia without symptoms: Atabrine 0.2 gm. and sodium bicarbonate 1 gram by mouth with 200-300 cc. water every six hours for five doses followed by atabrine 0.1 gm. three times a day p.c. for six days. (2.8 gm. in seven days).

Atabrine has a definite advantage over quinine in that it actually kills the falciparum parasite which is responsible for the malignant encephalitic form of malaria. Quinine merely suppresses this form. Quinine kills the benign form (Plasmodium vivax, tertian) whereas atabrine merely suppresses it. Another advantage of atabrine is that it has fewer side-effects than quinine.

DR. EARL SAGE: How long does the skin stay yellow when patients receive atabrine?

DR. MOORE: Some get yellow and others do not. It apparently varies according to the number of pigment cells. People who tan easily seem to get a deeper color. As a rule it is six weeks to six months before the pigment leaves the skin. Some of the patients who take atabrine for two or three years get a bluish pigmentation under the nails and around the mouth and lips.

DR. SCHENKEN (Laboratory and Epidemiology): This case brings up several interesting questions about returned veterans which were not apparently important before World War II. First, the question of the use of a returned veteran as a donor in transfusions; and second, whether or not the infected returned veteran is an important public health problem.

Although this patient gives a history of having malaria when she was a child in southern Missouri and having been in this part of the country about six weeks prior to her admission to the hospital, it seems most likely that her malaria was obtained from the returned veteran donor inasmuch as the onset of the disease occurred approximately two weeks after the transfusion had been given. This corresponds to the usual incubation period of malaria.

What are we going to do when we are faced with ex-GI donors? It doesn't seem practical that routine smears be made on all cases; first, because of the time required for examination; and second, because many chronic cases do not have organisms present in their blood streams at all times. It would seem proper then that a careful history be taken of all ex-GI donors and, if they give a history of malaria within the last three to five years or if they were stationed in malarial districts within this period of time, they should not be used as donors unless an absolute emergency arises. Even if the blood smear is negative and the ex-GI with a positive history is used as a donor, one danger would be that during the time that the blood is being withdrawn the spleen is stimulated to contract and it seems possible that parasites might be thrown into the circulation as a result. One method of aiding diagnosis is by giving a preliminary dose of adrenalin prior to obtaining a blood smear. This causes contraction of the spleen and organisms are poured into the circulation.

With regard to the possibility that our returned veteran with malaria might become a public health problem, it would seem that our discussion on that score can be divided into two phases. First, do we have the transmitting agent? Yes—the Anopheline mosquito is present in the Mid-Western section of the United States but it seems likely that because of the rigorous winter the hibernating mosquito or its larvae would be sterilized of its protozoa and, therefore, would have to be reinfected to become a menace. Second, an occasional case instead of a large number of cases will be present in the Mid-West. These will no doubt be brought under treatment promptly and very little opportunity will be given for infecting mosquitoes. It does not seem possible that the returned GI veteran can be much of a public health hazard with regard to malaria.

The important consideration is that we must all be on the lookout for clinical malaria so that treatment can be instituted promptly. Even if the returned veteran has not been in a malarial area for anywhere from six to eighteen months without symptoms, he still might have a recurrence of his disease.

In the laboratory diagnosis of malaria I would like to emphasize a few points. First, the smear should be obtained just prior to the anticipated chill. This, of course, is based on the history of the patient. Second, the smear should be very thin and even. Third, it should be stained with ordinary Wright's stain; and fourth, search for parasites should not be given up after one or two minutes. If the smear is made after the chill, it may require a ten or fifteen minute search before a parasite is found and even then it may not be found. In cases of chronic parasitemia the thick drop is often preferable to the thin smear. A drop of blood measuring 1.0 to 1.5 cm. in diameter is placed on a slide and allowed to dry. It is dehemoglobinized by adding equal parts of water and allowed to dry. The preparation is stained with Giemsa stain which has been diluted five times with water just prior to use. A ten or fifteen minute search is made for parasites.

Malarial parasites remain viable for at least three days in stored blood and it is recommended that blood not be used for five or ten days.

CASE 2. Infectious mononucleosis.

DR. CLYDE MOORE (Clinical History): This is the case of a white male, 6 years of age. His complaints were sore throat, fever and lymphadenopathy. The history was obtained from the mother. The child had not been feeling well for a few days and ran a slight fever. He was thought to have tonsillitis. When the temperature rose to 104° F., I was called. He seemed to have a rather severe throat infection so we sent him to the hospital. He had enlarged cervical lymph nodes and a pharyngitis. The adenoids were enlarged and the spleen palpable. We asked for a blood examination with the idea that he might have an infectious mononucleosis. The peripheral blood showed findings typical of infectious mononucleosis. There is no specific treatment for this disease. We treated him for tonsillitis and gave him penicillin but the treatment did not seem to be effective. After about four to six weeks the symptoms cleared up and the glands were beginning to recede. The diagnosis is made with certainty on the basis of the presence of heterophile antibodies in the blood. These antibodies sometimes remain in the blood for a period of three to four months. We have had four cases and the symptoms of all were sore throat and generalized lymphadenopathy, usually involving the cervical lymph nodes. In three of the four cases an enlarged spleen was present. Although the etiology is not known, my impression is that we are dealing with a specific infection. The mortality is very low.

DR. SCHENKEN (Laboratory Findings): The laboratory findings in this case were significant. White blood cells, 12,000; lymphocytes 84 per cent, with 9 of these being atypical lymphocytes; neutrophiles 7, hemoglobin 78 per cent; and red cells 3,820,000. The heterophile antibody titre was 1 to 112. Titres of more than 1 to 7 are diagnostic.

CASE 3. Infectious mononucleosis.

DR. W. A. CASSIDY (Clinical History): The patient was a 24-year-old white male just discharged from the Army who complained of chronic bleeding from the gums and recurrent difficulty in swallowing. He had been treated several times for trench mouth during the past two years while he was in the service. He had some slight swelling of the left side of the neck. His present illness began with bleeding from the gum margins and difficulty in swallowing, with the latter complaint being the most conspicuous at the time he was seen. His temperature was 101° F. On examination he was found to have a slightly injected nasopharynx but no significant discharge. At the extreme base of the tongue there was an elevated, ulcerated lesion, 3x3 cm. It was covered by a white, sticky, foul smelling material. A direct smear showed numerous spirochaetes and fusiform bacilli. No axillary or inguinal lymph nodes were palpable and the spleen was not enlarged.

DR. SCHENKEN: Laboratory findings in this were as follows: white blood cells 29,300 per cubic millimeter, with 85 per cent lymphocytes, 13 per cent neutrophiles and 2 per cent monocytes. Many of the lymphocytes were atypical, showing the characteristic changes seen in infectious mononucleosis. The heterophile antibody titre of the blood was 1 to 7,168. The Kline and Mazzini tests of the blood were negative.

These two cases have things in common and therefore we will discuss them before we present the next case. It seems quite possible that infectious mononucleosis might be much more prevalent than we believe because in many cases the symptoms are mild and complete blood studies are not made. A brief review of the important facts about infectious mononucleosis seems worth while.

The disease may be defined as an infectious disease of unknown etiology characterized clinically by sore throat, lymphadenopathy, especially in the cervical region, fever and splenomegaly. From a laboratory standpoint the disease is characterized by an absolute lymphocytosis, abnormal lymphocytes in the circulation and the presence of heterophile antibodies in the blood.

HISTORY OF THE DISEASE

Pfeiffer in 1889 first described the disease clinically. In 1909 Burns noted the mononuclear character of the blood, and in 1920, Sprunt and Evans observed the fact that many of these lymphocytes were abnormal. In 1932, Paul and Bunnell discovered the presence of an antibody in the circulation of these patients which had the ability to agglutinate or hemolyze washed sheep cells in rather high titre. This is known as the heterophile antibody.

ETIOLOGY

The etiology is unknown. Many types of organisms including cocci, bacilli, spirochetes, protozoa and viruses have been accused of being the etiologic agents but none have been proved. Some interesting work has been done in emulsification of lymph nodes from patients affected with the disease and injection of this emulsion into monkeys which produced a mild febrile illness similar to that seen in humans. A laboratory technician working with this material accidentally pierced a finger and developed a complete clinical picture of infectious mononucleosis.

SYMPTOMATOLOGY

The clinical symptoms and signs are so bizarre that the following diseases can readily be confused with infectious mononucleosis: follicular tonsillitis, Vincent's angina, diphtheria, German measles, catarrhal jaundice, appendicitis, meningitis, agranulocytosis and acute leukemia. The usual history, however, is that of an upper respiratory infection associated with definite cervical lymphadenopathy. The onset of the disease presents many different clinical pictures. Baldridge, Palmer and Hansmann list five types of onset: (1) sudden onset with high fever, headache, nausea and vomiting; (2) fever, membranous angina and lymphadenopathy; (3) fever and lymphadenopathy; (4) abdominal pain and fever; and (5) an insidious onset so mild that the patient does not stop work. Lymphadenopathy is the most constant sign. The spleen is palpable in about 65 per cent of the cases.

LABORATORY FINDINGS

The total leucocyte count is usually between 10,000 and 20,000, the range being from 4,000 to 63,000. The leucopenia which is occasionally seen is usually only present in the early part of the disease. Abnormal lymphocytes characterized by cells which are larger than normal are present. The abnormal lymphocytes vary greatly in size and shape and present a nucleus which may be ovoid or kidney-shaped. The nuclear chromatin is coarse and the cytoplasm has a vacuolated or foamy appearance. The blood serum contains a heterophile antibody which is present in dilutions higher than 1 to 7. It may go as high as 1 to 7,168 and, on occasions, higher. The highest titre may be found in the first few days of the disease in some cases but in others it does not appear for a week or two. The only difficulty in interpreting an elevated heterophile antibody titre is the fact that patients treated with horse serum and an occasional allergic patient sometimes give a false positive reaction. In addition, patients with infectious mononucleosis may also give a falsely positive Wasserman reaction. This usualy only lasts for two or three months and can easily be checked by repeating the Wasserman test.

CASE 4. Multiple anaerobic streptococcal brain abscesses following mastoiditis and complicated by infectious mononucleosis.

DR. J. J. KEEGAN (Clinical History): The case is that of a white female, aged 20, who was admitted August 10, 1945 because of pain in her left ear and mastoid region. In August, 1944, she had an attack involving the right ear and mastoid region which was accompanied by a drainage of the right ear. The condition cleared up under therapy with sulfa drugs and penicillin therapy. In July, 1945, the condition recurred and also cleared up promptly under sulfa drug and penicillin therapy. On the day before her admission to the hospital she awoke in the morning with pain, stiffness and swelling of the left side of her neck and a fever of 101° F. She was treated with heat and hot packs followed by cold packs. On the following day the pain, stiffness and swelling became worse and she was sent to the hospital. On admission the x-ray examination did not reveal sufficient change to justify operative interference but the patient developed an increased intracranial pressure. Under observation, her spinal fluid pressure increased to 300 mm. of water. Her productive cough suggested some degree of bronchiectasis and the x-ray examination confirmed this opinion and the further thought that there was a metastatic abscess of the brain. Her symptoms were definitely left-sided and her spinal fluid pressure was rising rapidly, but, other than that, there were no localizing signs. We suspected an abscess in the left temporal lobe. A ventriculogram was done and revealed considerable dilation of the ventricles but both lateral ventricles filled properly. Dr. Hunt reported that the right lateral ventricle was a little larger than the left but no difference was noted in the temporal horns of the lateral ventricles. This finding seemed to rule out the possibility of a left temporal lobe abscess.

On August 19, 1945, an exploration of the right frontal lobe was made by trephine. Clear ventricular fluid was obtained under moderate pressure, but no abscess was found. On August 20, 1945, a trephine exploration was made back of the left mastoid over the cerebellum. The cerebellar convolutions appeared normal; the wound was closed and a similar opening made on the back of the right mastoid. The dura here appeared opaque and the needle was inserted to its depth of 2 or 3 cm., but no pus was obtained. A larger needle was used but there was still no abscess found. The right ventricle was reached but we were afraid that we might have introduced an organism and the needle was removed from this ventricle. On September 30, 1945, an exploration was made in the right suboccipital region through the scar of the previous trephine. Thick, purulent material was found well anterior to the mastoid region. A small mushroom type of rubber catheter was placed in the abscess for drainage. The localization suggested a subdural abscess rather than intracerebellar abscess. Culture revealed an anaerobic Streptococcus. This abscess cleared up promptly but she continued to run an increasing intracranial pressure. Her temperature remained elevated.

About this time the leucocyte count changed. On October 30, 1945, the total white count was 8,600 with 42 per cent neutrophiles, 10 staff cells and 48 lymphocytes. Subsequent counts until the 14th of November showed a variation from 8 to 14,000. The differential count at all times showed an absolute lymphocytosis, the highest number of lymphocytes recorded being 62 per cent. On November 5, 1945, the laboratory reported atypical lymphocytes and a heterophile antibody titre of 1 to 224 was reported on November 6, 1945.

On November 10, 1945, trephine exploration of the left temporal lobe was performed and an abscess encountered with a depth of 4 cm. It was drained and the needle left in for drainage. Culture of material from the abscess again revealed an anaerobic Streptococcus. The diagnosis of infectious mononucleosis, although evidently correct, did not explain the patient's condition. The patient developed a speech defect and Dr. Young was called in. We decided that there must be a left temporal lobe abscess. Another trephine exploration was made and an abscess was found and drained.

I would like to have Dr. Schenken discuss the significance of this anaerobic Streptococcus with reference to the infectious mononucleosis. There seems to be no symptom of this disease inasmuch as she had no sore throat and no cervical lymphadenopathy.

DR. SCHENKEN: I have nothing to offer specifically except that this patient has the blood picture and the antibodies of infectious mononucleosis. In the literature on the subject there have been no reports of anaerobic Streptococci associated with this disease. Even though no conclusions can be drawn between the relationship of the anaerobic Streptococcus in the brain and in the mastoid in this case and the development of infectious mononucleosis, I believe the association of the two diseases should be recorded.

One thing is rather unusual in this patient's leucocytic response. Instead of showing a neutrophilic leucocytosis while she developed an abscess, she maintained her absolute lymphocytosis. Ordinarily, patients with infectious mononucleosis who develop a suppurative condition show a marked increase in the neutrophiles in the blood.

DR. RODNEY BLISS: What is the mortality of infectious mononucelosis?

DR. SCHENKEN: The mortality is very low. About seven cases have been reported and in most of these the immediate cause of death has been a ruptured spleen with massive intraperitoneal hemorrhage.

REFERENCES

Bull., Johns Hopkins Hosp., 31, 310, 1920.

Bull., U. S. Army Medical Department, Vol. 4, No. 4, Oct., 1945, 372.

Burns, J. E.: Glandular Fever. Arch. Int., Med., 4, 118, 1909.

Downey, Hal: Handbook of Hematology. Paul B. Hoeber, New York, 1938.

Gentile, A.: Am. J. M. Sc., 182:95, 1931.

Paul, J. R., and Bunnell, W. W.: The Presence of Heterophile Antibodies in Infectious Mononucleosis. Am. Jour. Med. Sc., 183, 90, 1932.

Pfeiffer, E.: Drusenfieber Jahrb. f. Kinderh., 29, 257, 1889.

Sprunt, T. P., and Evans, F. A.: Mononuclear Leukocytes in Reactions to Acute Infections ("Infectious Mononucleosis").

Wintrobe, Maxwell E.: Clinical Hematology. Lea & Febiger: Phillie, 1942.

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Tuberculosis Abstracts

General hospitals, whether they recognize the fact or not, have an ever-present tuberculosis problem among patients and personnel. Those institutions that maintain a search for the disease are protecting both groups from a hazard which is always greatest when least suspected. Tuberculosis control in general hospitals has proved to be both practical and easy. It should be one of the accepted and practised community health measures.

TUBERCULOSIS AND HOSPITALS

The method by which tuberculosis is discovered for treatment is known as case finding. This has developed in step with medical progress. In the period before and immediately after World War I, the horse-and-buggy days of the stethoscope changed to the Model-A days of an X-ray for every suspected case.

Modern case finding has leaped ahead with the speed of lightning. During the past decade, the technical developments in X-ray methods, forced to completion by the needs of the armed services, have brought efficient, fast X-ray service into the low-cost brackets. It is now possible to afford a method which one cannot afford to disregard.

Case finding in hospitals is the perfect combination of method and place. Hilleboe and Morgan, in their manual on mass radiography, have stated concisely that a hospital and an industry are the two best places to practice mass case finding by X-ray. There are about 16,000,000 hospital admissions a year, and the patients who go there expect to be examined carefully.

A complete program for control of tuberculosis in a hospital must include:

1. The space for the care of tuberculosis patients, newly admitted and recently discovered.
2. A simple, efficient routine of infectious disease precautions for protection of the patients and personnel.
3. A complete case-finding program for patients and personnel.

The rationale and details of these approaches have been described in a manual "The Management of Tuberculosis in General Hospitals," published by the American Hospital Association in 1939, and revised in 1946.

Case finding in a hospital may be applied to two groups—the patients and the personnel. The patient group consists of all new admissions to the hospital, and all patients registering for the first time at the out-patient clinic. The personnel groups include the medical and nursing staffs, and all categories of hospital employees.

The ideal qualities of a method to be used for examination of new admissions must include speed, convenience, efficiency, low cost and permanence of record.

Only an X-ray method would have these qualities, and only miniature films of high quality would meet the tests of efficiency and cost. Miniature films in use now are the 35 mm. and the 70 mm. camera films, and the 4"x5" X-ray film. A stereoscopic pair of any of these sizes is about as efficient as a 14"x17" single film provided the new technical developments have been used. The cost of each can be as low as five to twenty cents, exclusive of the costs of film readings.

There are alternative methods, to be used when equipment for taking miniature films is not available. A 14"x17" paper X-ray is slightly less efficient and costs about half as much as the 14"x17" film, the standard of comparison. Fluoroscopy costs little and provides an immediate report, but it is less efficient, needs a specially trained operator and leaves no permanent record.

Supplemental film methods are used only to confirm or investigate the original findings. The use of 14"x17" stereo films provides the best information when the original film or lesion is indefinite.

Case finding among personnel groups is done by the methods used for new admissions. In addition, it may be considered valuable to tuberculin skin-test student nurses, nurses in tuberculosis units, medical students, internes and residents. Original reactions can be checked at intervals so long as they continue to be negative. Recurrent X-raying of the personnel groups is necessary to a complete case-finding program. Four to twelve months is the usual interval.

Surveys of various population groups have shown that about one to three per cent have reinfection type tuberculosis. Pre-induction surveys for the armed forces show that an average of about 0.9 per cent have pulmonary tuberculosis in that age group.

In hospital surveys reinfection type of disease was found in 1.5 per cent to 2.3 per cent of the patients, with perhaps one-third of this amount called "active." The medical and nursing groups have shown variable levels of infection and disease, depending on rural or urban origin and duration of contact with patients. The levels rise rapidly during continued contact, often to a 100 per cent infection rate. The older nurses have been found to have from 2.5 per cent to such fabulous rates as 8.8 per cent reinfection type disease, and ward workers with many years of contact with patients may have up to 4.3 per cent disease. Non-contact workers have the same per cent as in the comparable local population.

The present status of hospital case finding can be judged from a survey of 934 teaching hospitals by a joint committee of the American Trudeau Society and the American Hospital Association in 1944. X-rays are being taken of student nurses by 85 per cent of the hospitals; of the medical residents by 28 per cent; of graduate nurses by 31 per cent and of the other employees by only 17 per cent. In spite of the war, 56 hospitals have begun routine case finding among new admissions. Of these, seven hospitals do not knowingly admit tuberculosis patients.

The future prospects of case finding in hospitals should embrace 100 per cent of the hospitals. Routine case finding certainly will become widespread when the results have become known, when help becomes available, and when the equipment can be procured.

Practically, case finding will need to be explained. The medical staff and the hospital manager may approve of the program and methods, but the hospital board may need to be enlightened. A director is necessary for the planning and execution of a suitable program for each hospital. It helps if he understands tuberculosis work and will do no harm if he has some of the fervor of an evangelist.

In conclusion, case finding in a hospital finds tuberculosis—the first essential in any tuberculosis program. It provides the hospital with a knowledge of all of the tuberculosis within its walls. It improves the hospital's competency and removes a hazard to patients and personnel—the unrecognized case. It improves the diagnostic efficiency of the hospital, both for tuberculosis and non-tuberculous disease. It is bound to improve community health. Case finding in hospitals, by hospitals, is certain to become a widely used procedure.

—TB Search in Hospitals, W. H. Oatway, Jr., M.D. The NTA Bulletin for November, 1945.

WAR AND LOW FACULTY PAY CUT MEDICAL EDUCATION STANDARDS

In an editorial entitled "Financial Support of Medical Schools," The Journal of the American Medical Association anticipates a serious lowering of standards in medical education.

"The war dealt a serious blow to the quality of medical education," The Journal says in a recent issue, adding: "The failure of the Selective Service System to provide for the training of scientists has already resulted in a serious deficiency of instructors, particularly in preclinical subjects. The rosters of candidates for Doctor of Philosophy degrees in our larger universities have been largely nonexistent for some four or five years.

"A further threat to the quality of medical education lies in financial developments involving the budgets of our medical schools. Dr. Frank E. E. Germann pointed out in a recent issue of Science that the current salaries in effect for instructors in science are such as to make it virtually impossible to attract qualified men and women to these institutions as teachers. He says, 'A small number of our highly endowed educational institutions have been able to hold and attract outstanding scholars because of their higher salary scales, but the average private or state-supported institution has been forced into mediocrity.' He asks, 'What future can we promise young men and women holding pre or postdoctoral fellowships at $1,800 to $3,000 when we still offer $2,000 for assistant professors and require that they have the doctorate degree? What chance do we have to secure a competent teacher in science when a full professor, after thirty years of service, may never reach a salary of $4,000?'

"The failure to provide adequate salaries can be attributed in part to the decreased endowment income of recent years, which, estimates indicate, has lost the medical schools about one third of their endowed income. Other factors are operating to reduce funds available to pay teachers in medical school. Faculties are being increased in numbers with the return of men who have been on leave for military or other government assignments. Income from fees for tuition will decrease, sharply in some instances, because the deceleration of the medical curriculum will provide fees to the school for only three fourths of the calendar year instead of the entire year. Fees collected will also be reduced by reductions in enrollments. State schools will receive smaller sums because the Army and Navy medical school programs paid out-of-state tuition fees which are often considerably greater than the fees charged residents of the state in normal times. With the termination of the military medical school programs these state universities will be returning to the normal lower fee schedule.

"As a result of these developments a serious lowering of standards in medical education may be anticipated. Every means must be explored to combat such tendencies. Increased endowments must be sought, perhaps especially from industry, which benefits largely from improvements in science instruction and research. The financial structure of most of our states is now such that considerably increased sums could be employed in medical education without greatly taxing state resources. Bills now pending before Congress provide primarily for the support of scientific research and training fellowships. Little if any consideration is given to the equally important financial strengthening of our whole structure of medical education. An annual budget of $350,000 for a small medical school may be the minimum goal which should be sought by all medical schools. Unfortunately, an appreciable number of our medical schools has not reached this minimum standard."

DIPHTHERIA EPIDEMIC HITS FINLAND

The Stockholm, Sweden, correspondent of The Journal of the American Medical Association reports in the May 11 issue that "the number of cases of diphtheria in Finland has been extremely high for the past few years."

"Normally," he adds, "there are about 1,000 to 4,000 cases annually, but in 1945 there were 17,899 cases, of which 1,005 were fatal. In Finland's armed forces between 1943 and 1945 more than 45,000 soldiers had the disease, and over 3,000 of the cases had a fatal outcome. The epidemic is still severe and shows no signs of receding."

5,707 ADDED TO U. S. PHYSICIANS RANKS IN 1945

There were 5,707 additions to the medical profession in 1945, according to data presented in the forty-fourth annual compilation of medical licensure and allied statistics by the Council on Medical Education and Hospitals of the American Medical Association and published in the May 11 issue of The Journal of the American Medical Association.

"The number of physicians removed by death in the United States and possessions in the same period was 3,815," The Journal says, adding: "It would appear therefore that the physicians population in the United States last year increased by 1,892."

During 1945 there were 9,153 licenses to practice medicine and surgery issued by the medical examining boards of the 48 states, the District of Columbia, Alaska, Hawaii, Puerto Rico and the Virgin Islands. Of these licenses, 5,541 were issued after examination and 3,612 by reciprocity and endorsement of other state licenses or of the certificate of the National Board of Medical Examiners.

California, with 1,208, issued the greatest number of licenses during 1945. New York issued 799 and Pennsylvania 518.

Increases in the number of physicians registered last year as compared with data reported for 1944 were noticeable in a number of states and particularly in Arkansas, California, the District of Columbia, Florida, Illinois, Indiana, Iowa, New Jersey and the possessions, while more pronounced decreases in registration occured in Georgia, Kansas, Kentucky, Maryland, Michigan, Mississippi, Missouri, Nebraska, Ohio, Pennsylvania and Virginia.

The greatest number of graduates of any one school examined was 288, representing Indiana University School of Medicine. Of this number, 213 were examined in Indiana and 15 in seven other states. Graduates of the University of Pennsylvania were examined in the greatest number of states—22.

Twenty-seven approved medical schools in the United States had no failures before medical licensing boards.

Altogether there were 5,929 candidates who appeared before medical examining boards in 1945, of whom 5,341 passed and 588, or 9.9 per cent, failed. The greatest percentage of failures represented two groups—foreign and unapproved schools.

Council Secretary Victor Johnson reported that the wartime accelerated medical program started about July 1, 1942 and the peak of graduates was reached in 1944, when two classes were graduated at most schools. The total number of graduates for the four session three year cycle to July 1, 1945 was 20,662. For the four years 1942 to 1945 inclusive 35,803 physicians received licenses. This figure includes physicians previously licensed who are migrating to other states and veteran medical officers not returning to their original state of practice.

Discontinuance of the A.S.T. and Navy V-12 programs in medical schools at the end of the session which for most schools ended in March, 1946, permits schools to decelerate, and most if not all schools are planning to discontinue the accelerated program.

APPROXIMATELY 6,500,000 PERSONS IN U. S. HAVE STOMACH ULCERS

It is conservatively estimated that at least five per cent of the population or about 6,500,000 persons suffer from stomach ulcers, according to William W. Bolton, M.D., of the Bureau of Health Education of the American Medical Association.

Writing in Hygeia, Dr. Bolton describes the ulcer type of person as one who is thin, inclined to limited activity, nervous, rather short tempered and easily upset. He is never a robust eater and is choosy in his diet.

Stomach ulcers are known more properly by the term peptic ulcer, a designation including those found on the portion of the intestinal tract leading from the stomach and called the duodenum.

Describing the symptoms, Dr. Bolton says: "Pain time depends on the location of the ulcer. If it is in the stomach, pain usually develops from one-half to two hours after a meal. It is the signal that the stomach is empty . . . and is squeezing the ulcer again. If the ulcer is in the duodenum, which it is far more commonly, especially in men, the pain may not start for from two to four hours after a meal.

"Two eventualities which may prove of serious import, though rarely fatal, in ulcer cases are hemorrhage or perforation. In the former, bleeding occurs sometimes in alarming amounts when the ulcer chances to erode into a blood vessel in the wall of the stomach or duodenum. In the latter, a surgical emergency exists but prompt intervention insures recovery in practically all instances.

"Cancerous degeneration is a possibility, but it is not as frequent as might be expected. General opinion is that duodenal ulcers almost never degenerate into cancer, and stomach ulcers in not more than 10 per cent of cases."

The causes of ulcers are many. The author points out that "it's uncommon to find the same causes operating in two consecutive cases. Local factors may be responsible in some instances, such as the decrease in resistance of the sensitive tissues lining the stomach or an unexplained decrease in an adequate blood supply to the area. Some authorities are inclined to blame alterations in the acid content of the juice secreted by the stomach. This opinion is supported by the fact that in many cases of peptic ulcer hyperacidity of the gastric fluid is present.

"Other investigators have found what appears to be a definite link between peptic ulcers and the presence of foci of infection in other, often far removed, areas of the body. Ulcers have been related to abnormal operation of the various glands of internal secretion."

Continuing, Dr. Bolton writes that "effective treatment is based on recognition that mild, soothing food with frequent feedings serves to keep the stomach partially filled and that neutralization of the excess acidity usually present is necessary.

"Recently a new treatment has brought excellent results. It consists of administration of concentrated protein preparations, either by mouth or through injection into a vein. Following the start of this treatment, ulcers disappeared as though by magic. Though final evaluation of this treatment must await further study, it appears to have significant possibilities."

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THE PLATFORM OF THE AMERICAN MEDICAL ASSOCIATION

The American Medical Association advocates:

1. The establishment of an agency of federal government under which shall be coordinated and administered all medical and health functions of the federal government exclusive of those of the Army and Navy.
2. The allotment of such funds as the Congress may make available to any state in actual need for the prevention of disease, the promotion of health and the care of the sick on proof of such need.
3. The principle that the care of the public health and the provision of medical service to the sick is primarily a local responsibility.
4. The development of a mechanism for meeting the needs of expansion of preventive medical services with local determination of needs and local control of administration.
5. The extension of medical care for the indigent and the medically indigent with local determination of needs and local control of administration.
6. In the extension of medical services to all the people, the utmost utilization of qualified medical and hospital facilities already established.
7. The continued development of the private practice of medicine, subject to such changes as may be necessary to maintain the quality of medical services and to increase their availability.
8. Expansion of public health and medical services consistent with the American system of democracy.

ANNOUNCEMENTS

Last call for reservations for the AMA Sessions in San Francisco, July 1-5. If you plan to attend but have not made reservation, wire at once to Dr. M. Laurence Montgomery, Chairman Housing Committee, American Medical Association, Room 200 Civic Auditorium, San Francisco, Calif.

The pediatric survey endorsed by the House of Delegates of the Nebraska State Medical Association is now being organized with Drs. E. W. Hancock and E. S. Wegner, Lincoln, as co-chairman. The blanks for the survey may be sent out before the appearance of the next issue of this Journal. It is hoped that every physician in the state will lend his full cooperation to the end that we may have a true picture of pediatric facilities in Nebraska. The survey, as you know, is sponsored by the American Academy of Pediatrics in an effort to obtain information on nation wide facilities for the health care of children. Dr. J. A. Henske of Omaha is state chairman of the Academy.

RADIO TRANSCRIPTIONS

"The Public Comes First," a new series of six radio transcriptions, prepared by the Council on Medical Service and Public Relations in cooperation with the Bureau on Health Education, is ready for distribution. These transcriptions in which Harriet Hester, nationally known radio script writer, interviews members of the Council deal with various phases of the medical care problem, urban and rural health, voluntary prepayment plans and the A.M.A. Constructive Program for Medical Care. These consist of the following fifteen-minute transcriptions:

"What Constitutes Adequate Medical Care?" Dr. Roger I. Lee and Dr. Thomas A. McGoldrick.

"What Are Rural Medical Problems?" Dr. James R. McVay and Dr. W. R. Brooksher.

"The Cost of Illness," Dr. Louis H. Bauer.

"Hospital Insurance and How to Make Use of It," Dr. Alfred W. Adson and Mr. John R. Mannix.

"Prepaid Medical Service Plans," Dr. John H. Fitzgibbon and Mr. J. C. Ketchum.

"The Public Comes First," Dr. Herman L. Kretschmer and Dr. E. J. McCormick.

Notices of this service have been sent to various radio stations throughout the country. Proper committees of county medical societies are urged to contact their local radio stations and schedule these broadcasts. Stations are scheduling these on a sustaining (no fee) basis. These "platters" may be obtained free of charge by writing direct to the Bureau of Health Education or the Council office.

POLIOMYELITIS PREPAREDNESS CONFERENCE AT CASPER, WYOMING

Dr. George E. Baker, President of the Natrona County Medical Society, and Dr. N. E. Morod, President of the Wyoming State Board of Health, have announced a Wyoming-Colorado Poliomyelitis Preparedness Conference to be held in Casper, Wyoming, June 17 and 18.

The conference is being sponsored jointly by the Natrona County Medical Society, the Wyoming State Board of Health, and the National Foundation for Infantile Paralysis.

The conference, it is reported, will include sessions pertaining to diagnosis and treatment of the disease, as well as to epidemiology and general public health factors.

Among those to appear on the program are Dr. Hart E. Van Riper, New York, Assistant Medical Director, National Foundation for Infantile Paralysis; Dr. Robert G. Packard, Denver, Member, Medical Advisory Committee, National Foundation for Infantile Paralysis; Dr. Morton A. Seidenfeld, New York, Director of Psychological Services for the National Foundation for Infantile Paralysis; Dr. W. S. Petty, Lincoln, Nebraska State Director of Health; and Gosta Valdemar, Director of Physical Therapy, Children's Hospital, Denver.

Nebraska doctors and public health officials interested in poliomyelitis are welcome at this conference. Hotel reservations may be obtained through the Casper, Wyoming, Chamber of Commerce. A similar conference held in Denver, Colorado last year was very well attended.

PLANS ANNOUNCED FOR 1946 CLINICAL CONGRESS OF AMERICAN COLLEGE OF SURGEONS IN NEW YORK

The American College of Surgeons announces that arrangements have been completed for the holding of its Thirty-second Clinical Congress at the Waldorf-Astoria, New York, September 9 to 13, inclusive. Plans include the usual extensive program of demonstrations, scientific sessions, panel discussions, symposia, forums, Hospital Standardization Conference, medical motion pictures, business meetings, and educational and technical exhibits, which will be held in the headquarters hotel, and operative and non-operative clinics in the local hospitals.

This will be the first Clinical Congress since the meeting in Boston in 1941. Since that time, 2,744 surgeons have been received into fellowship in absentia, and to them in particular the Convocation on the opening night of the Congress will be a long anticipated event. Many of these new Fellows will have recently returned from service with the armed forces. The formal initiation ceremonies, always impressive, will be exceptionally so this year because of the large number of new Fellows admitted during the past four years who are expected to be present.

Officers, Regents, and Governors have remained in office since 1941 because of the cancellation of annual meetings of the Fellows. Especial interest will also therefore be attached to the installation of the officers-elect, headed by Dr. Irvin Abell, Chairman of the Board of Regents, as President. Dr. W. Edward Gallie of Toronto has been President since November, 1941. Dr. Gallie will give the Presidential Address at the Presidential Meeting and Convocation on the evening of September 9 in the Grand Ballroom of the Waldorf-Astoria.

Dr. Howard A. Patterson and Dr. Frank Glenn of New York City are Chairman and Secretary, respectively of the Committee on Local Arrangements. Dr. Henry Cave of New York, a member of the Board of Regents of the College, is also active in directing the local plans for the meeting, attendance at which is usually around five thousand surgeons and hospital representatives.

2,000 TO ATTEND COLLEGE OF SURGEON'S ASSEMBLY

More than 2,000 surgeons and other doctors of medicine are expected to attend the three-day Assembly of the United States Chapter, International College of Surgeons in Detroit, October 21-22-23.

Among the principal speakers to be heard in Detroit's Masonic Temple will be Mr. Hamilton Bailey of London, England; Dr. Francisco Grana of Peru; Dr. Felipe F. Carranza of Argentina; Dr. Manuel Manzanilla of Mexico; Dr. Wayne W. Babcock of Philadelphia, and many other leading surgeons of the United States.

Dr. Herbert Acuff of Knoxville, Tennessee is President and Dr. Custis Lee Hall of Washington, D. C., is President-Elect of the U. S. Chapter, International College of Surgeons. Detailed information and copy of the Program may be obtained by writing L. J. Gariepy, M.D., 16401 Grand River Avenue, Detroit 27, Michigan.

NEWS NOTES FROM OFFICE OF THE SURGEON GENERAL, TECHNICAL INFORMATION DIVISION, WASHINGTON, D. C.

ARMY OFFERS PAID INTERNSHIPS TO UNIVERSITY MED STUDENTS

Junior class medical students now in approved civilian medical schools will be offered internships in U. S. Army hospitals starting July 1, 1947, Major General Norman T. Kirk, the Surgeon General, announced.

These internships will differ from those offered medical school graduates for the 10 years prior to the war in that interns selected will be given a reserve commission of First Lieutenant in the Army Medical Corps. Under the former program, interns in Army hospitals were classified as civilian War Department personnel at an annual salary of about $1,000.

Internships, under the present plan, will enable the intern to draw the salary of a First Lieutenant, or about $3,404 annually if there are dependents. If the intern has no dependents, he will receive

$2,972 a year. These figures include rental allowances of about $60 per month which are not paid when government quarters are furnished.

Designed to give the fifth or clinical year of training, the course will be of the conventional rotating type. This service in Army hospitals is recognized by the Council on Medical Education and Hospitals of the American Medical Association, and State Boards of Registration which require the clinical year of training before granting a license to practice.

"Medical school graduates are assured of an interesting and profitable career in Army medicine if they elect to accept Regular Army commissions upon completion of the clinical internship in Army hospitals," Major General Norman T. Kirk, the Surgeon General, declared. "Selections will be based on scholastic attainment, physical fitness and aptitude for military service. We expect to produce outstanding doctors through our educational program."

In notifying Deans of accredited medical schools of the plan, the Surgeon General asked that they recommend men not only desirable as interns, but who will ultimately develop as Regular Army medical officers. A professional examination will not be required before the internship is accepted.

Applications may be submitted by students through the Deans of their respective schools. They must reach the Office of the Surgeon General between June 5-15 this year. Each applicant who successfully qualifies will be notified not later than July 1. He must accept or reject the appointment not later than July 8. Application blanks may be obtained from the Deans of medical universities during May.

An applicant must conform to the basic requirements of being a United States citizen, a prospective 1947 graduate of a recognized school of medicine approved by the Council on Medical Education and Hospitals, not over 30 years of age on July 1, 1947, have no commitments to accept an internship appointment in any other institution and meet physical standards for appointment in the Medical Corps, U. S. Army. Physical qualifications are printed in Army Regulations 40-105.

VA IN NEED OF PHYSICIANS

Qualified physicians are being sought to fill full-time vacancies existing at Veteran's Administration hospitals in Minnesota, Nebraska, Iowa, North and South Dakota at salaries ranging from $3,640 to $5,180, E. R. Benke, deputy administrator of Branch-8, announced recently.

Specialists certified by the American Specialty boards of the VA will be paid an additional 25 per cent of base pay.

Managers of regional offices and hospitals have been authorized by Washington to fill positions in junior, associate and full grade.

Close association with civilian medical associations and teaching centers, Benke pointed out, will assure modern scientific medicine in VA establishments.

"The large number of patients handled, and the opportunity for continuity of contact with individual patients over a period of years, provides outstanding opportunity for extensive professional experience," Benke said.

Interested physicians are asked to apply to the manager of the nearest regional office, hospital or center, or to the branch office, 328 Midland Bank building, Minneapolis. Preference of location will be given consideration consistent with the needs of the service.

WILL YOU GIVE THAT THEY MAY LIVE?

At this moment a quarter of the world's population is facing death from sheer starvation.

President Truman says: "More people face starvation today than in any war year, and perhaps more than in all the war years combined. The United States and other countries have moved food into stricken areas in record amounts, but there is a constantly widening gap between essential minimum needs and available supplies."

Diseases caused by malnutrition are taking a heavy toll in human lives. Plague, already sweeping China, may well spread to other continents. An official observer reports, "People are dying in the streets and fields."

The Emergency Food Collection, now under way throughout the United States on behalf of UNRRA, assumes great significance in this world famine. Its purpose is to suplement the minimum subsistence diets planned for in UNRRA's general relief program.

Both food in tin cans and money to buy food are sought. Every penny contributed will be used to buy more food.

The collection was undertaken because millions of people in this country want to make direct and personal contributions to help save lives of war victims overseas—to "give that others may live."

The contributed food will be distributed free, without discrimination, on the basis of greatest need.

The success of the collection depends a good deal on the support of the women of America—the women who buy food for the home and who can save food in the home.

Among the kinds of foods needed are: milk (condensed, evaporated or dried), meat, fish, peanut butter, baby foods, baked beans, stews, soups, honey, fruits, juices, and vegetables. Handling and shipping problems restrict the collection to foods canned in tin.

Food collection depots have been established in every community in the United States. Those who wish to make cash contributions may do so through their local committees. If more convenient. checks or money orders can be sent to national headquarters of the Emergency Food Collection, 100 Maiden Lane, New York 7, N. Y.

WILL YOU GIVE THAT THEY MAY LIVE?

Famine!! Sweeping like a prairie fire over half the world. Help fight it. Give canned food or money to buy food to your Emergency Food Collection on behalf of UNRRA. Or, you may send checks or money orders to National Headquarters, Emergency Food Collection, 100 Maiden Lane, New York 7, N. Y.

NEWS and VIEWS

GRADUATE TRAINING PROGRAM IN THE NAVY MEDICAL CORPS

Graduate medical training consists of three general types: (a) internship; (b) residency-type training; (c) continuation courses and special courses.

The primary purpose of graduate medical training is to increase the proficiency of medical officers and to improve the standards of medical practice. Training in the medical specialties may lead to qualification for American Board certification, fellowship in one of the American Colleges, or other marks of distinction, as in civilian life, but these attainments should be considered as secondary. Every degree of graduate training, whether of the residency type or by clinical or special assignments, adds stature to any medical officer and increases his proficiency in his work.

Medical Officers desiring graduate training are encouraged to seek these opportunities, whether they propose merely to improve themselves as practitioners or to seek full qualification and recognition as specialists.

A. Intern Training.

Approval of U. S. Naval Hospitals for internship training is based upon standards of and action by the Council on Medical Education and Hospitals of the American Medical Association.

B. Residency-Type Training.

1. Approval of residency-type training in U. S. Naval Hospitals in medical and surgical specialties is based upon standards of and action by the above-named Council and American Boards acting jointly, and additional approval for graduate training in surgical specialties only is based upon standards of and action by the American College of Surgeons.

2. Approval of residency-type training in Naval Hospitals is in most instances for limited periods of time, such as one to two years of the total experience necessary for qualification for American Boards or for the accumulation of credits for the American Colleges. Unless an officer is on duty in a hospital in a specialty with unlimited approval, his training must be supplemented by further training in the same specialty but in another institution, Naval or civilian, in order to meet Board or College requirements.

3. Nine hospitals have been designated as centers of residency-type training:

U. S. Naval Hospital, Bethesda, Maryland
U. S. Naval Hospital, Chelsea, Massachusetts
U. S. Naval Hospital, Great Lakes, Illinois
U. S. Naval Hospital, Long Beach, California
U. S. Naval Hospital, Oakland, California
U. S. Naval Hospital, Philadelphia, Pennsylvania
U. S. Naval Hospital, San Diego, California
U. S. Naval Hospital, Seattle, Washington
U. S. Naval Hospital, St. Albans, New York

To date five of the centers have been inspected and approvals recommended. Plans are being activated now whereby all the Naval Hospitals can be inspected and proper recommendations made prior to the American Medical Association Session in July in San Francisco, California.

C. Continuation and Special Courses.

Continuation courses are designed for officers desiring brief courses after some type of dislocation from their usual lines of practice, or for the purpose of further improving themselves in some branches of medicine in which they may be especially interested. Such work may be obtained in short courses designed for these purposes, or by means of clinical assignments to naval or civilian hospital services where the applicant may add to his experience by direct clinical work.

It is not practical to assign to civilian institutions medical officers lacking the necessary background, preliminary training and screening in their requested specialty. It will be necessary to show an acceptable degree of aptitude for the work, acquire a certain amount of professional skill and exhibit a genuine desire for advancement to certification prior to consideration for further training. Courses of instruction in civilian institutions are not to be considered as necessarily leading directly to eligibility for examination by the specialty boards.

RESIDENCY-TYPE TRAINING

1. Residency-type training is the term applied to that medical experience acquired at any time subsequent to an internship by an officer assigned to duty or duty under instruction in a Naval Hospital under a qualified senior medical officer in a specialty where adequate clinical material, staff, and facilities exist to meet the standards of the Council of Medical Education of the American Medical Association, the specialty boards, and the American College of Surgeons. Requests for assignments for residency-type training in specialties will be received from applicants, made via their Commanding Officer, to the Bureau of Medicine and Surgery. Applications may be made by any medical officer desiring to improve his proficiency, whether intending to continue on to American Board certification or not. Competitive selection for residency-type training will be made by the Advisory Board of the Bureau of Medicine and Surgery. This is the new designation of the former Postgraduate Board.

2. Applicants are advised that certification by a specialty board is a by-product of the training program and is not an end in itself. Applicants are strongly urged to familiarize themselves with the requirements of the various specialty boards prior to submitting application for further training. Applicants will be under observation while in the intern year and at future assignments to Naval medical facilities. Recipients of residency-type training in the Navy are expected to remain in the Navy for a period of a year after completion of each year of training or three years after the completion of training which qualifies the recipient to be examined by a specialty board. Medical Officers receiving courses of six months or longer in an accredited civilian institution are likewise expected to remain in the Navy for three years after completion of such courses. The Bureau of Medicine and Surgery cannot certify any medical officer. Certification is the responsibility of the specialty board. Applications for this certification must be made by corresponding directly with the Secretary of the Board concerned rather than the Bureau of Medicine and Surgery.

3. All medical officers who receive graduate medical training should maintain a "Record of Professional Assignments" showing duty performed while under training. The maintenance of this

professional log is the responsibility of the medical officer. Blank copies of this record may be obtained from the Secretary of the specialty board upon request.

4. Further information may be obtained from the Professional Division of the Bureau of Medicine and Surgery, Navy Department, Washington 25, D. C.

DR. C. M. SMITH NEW RED CROSS DIRECTOR

New medical director for the American Red Cross is Dr. Courtney M. Smith, national headquarters announced today.

Dr. Smith has served with the organization since 1944 as deputy medical director and director of disaster medical service. He succeeds Dr. G. Foard McGinnes, recently appointed vice chairman for Health Services.

A graduate of the University of Oregon medical school and Yale University, where he obtained the degree of doctor of public health, Dr. Smith entered public health work in Clackamas County and Portland, Oregon, after three years of private practice in Oregon City and Portland. Subsequently he was appointed health officer for the Territorial Department of Health in Alaska, with headquarters in Juneau. From April, 1942, until his Red Cross appointment, Dr. Smith was a medical officer in the Office of Civilian Defense.

In May, 1945, he was given leave from Red Cross to represent the U. S. Public Health Service with the Army's Strategic Bombing Survey and did a four-months' tour of duty in Germany. A veteran of World War I, Dr. Smith served 26 months with the 63rd Field Artillery in the U. S. and France.

COUNCIL ON MEDICAL SERVICE AND PUBLIC RELATIONS

BULLETIN NO. 29

Rumors still persist that Congress may adjourn on or about July 1. However, much work remains to be done on legislation desired by the President. The hearings on the National Health bill continue with no signs of conclusion.

The House Subcommittee on Aid to Physically Handicapped has announced it will hold hearings on Mr. Sparkman's bill, H.R. 5206 beginning April 30. It is altogether likely that these hearings will be prolonged.

S. 178 which would give chiropractors the right to treat Federal employees in states where the chiropractors are licensed, was reported out by the Senate Committee on Education and Labor. There is considerable opposition to this bill and it is not at all certain that it would pass if it reached the floor. Its companion, H.R. 610, is in the hands of the House Judiciary Committee. No hearings have been held on it and nothing has been done to advance it.

The following new bills have been introduced since we last reported:

S. Res. 244 by Mr. Pepper of Florida, March 22. Resolution further increasing the limit of expenditures for a study and survey of the distribution and utilization of health personnel, facilities, and related services. Referred to the Senate Committee to Audit and Control the Contingent Expenses.

S. 1914 by Mr. Langer of North Dakota, March 8. A Bill authorizing the Federal Security Administrator to make loans to institutions for the purpose of financing the construction of domiciliary facilities for the aged and the blind. Referred to the Committee on Banking and Currency.

S. 2060 by Mr. Bankhead of Alabama, April 12. A Bill to provide continued ratings of permanent and total degree where active tuberculosis has been established and to terminate reduction of pension, compensation, or retired pay under laws administered by the Veterans Administration in the cases of veterans without dependents who are hospitalized or domiciled. Referred to the Committee on Finance.

H.R. 5960 by Mrs. Luce of Connecticut, April 1. A Bill to establish a Department of Children's Welfare. Referred to the Committee on Expenditures in the Executive Departments.

Comment: When introducing the bill Mrs. Luce said—"Among the many serious problems confronting us today, none is more vital to our future welfare as a nation than the mental, moral and physical health of coming American generations." *** "Experience has shown that services for children can be best administered by local communities, provided they have the support of the Federal Government when, and as, they may be needed."

The bill would create an executive department to be known as the Department of Children's Welfare, administered by a Secretary of Children's Welfare appointed by the President. The Department would have jurisdiction over the activities of the Government relating to the health, educational opportunity, and welfare of children in the United States. It would take over functions, powers, and duties relating to children now vested in the Secretary of Labor and the Chief of the Children's Bureau. The Secretary would be authorized to administer those provisions of the Social Security Act pertaining to grants to States for aid to dependent children, and those provisions pertaining to services for crippled children, child welfare services, and maternal and child health services. The Secretary would also be authorized to administer the provisions of the Fair Labor Standards Act relating to child labor. Under this bill, the Children's Bureau would be abolished and all officers and employees of it would be transferred to the Department of Children's Welfare.

H.R. 6073 by Mr. Somers of New York, April 10. A Bill to provide for the establishment of a United States Military Medical School. Referred to the Committee on Military Affairs.

H.R. 6074 by Mr. Somers of New York, April 10. A Bill to provide for the establishment of a United States Naval Medical School. Referred to the Committee on Naval Affairs.

H.R. 6080 by Mr. Lane of Massachusetts, April 12. A Bill to permit payments of States equal to one-half of the amount expended by the States for aid to dependent children without regard to the amount expended with respect to any dependent child for any month. Referred to the Committee on Ways and Means.

Comment: Congressman Lane said in introducing the bill—"No maximum limitation on Federal participation in payments be fixed by the Federal Government, determination of appropriate standards of assistance being left to the States. The proposal to eliminate ceilings in the Federal share in payments is consistent with the fundamental principle in the administration of assistance that the primary responsibility rests with the States."

ACTION ON BILLS

S. 1850—National Scientific Foundation bill—was reported out of Senate Military Affairs Committee on April 9. No further action has been taken.

S. 1779—Social Protection bill—Education and Labor Committee of Senate reported favorably on bill April 15.

S. 1271—Providing for cooperation with State agencies administering labor laws in establishing and maintaining safe and proper working conditions in industry, etc. Senate Committee on Education and Labor reported bill out of Committee April 18.

Associated Medical Care Plans is well on the way to become a going concern. The incorporation papers were filed this month with the Secretary of the State of Illinois. The Commission met in St. Louis in March and will meet in Chicago on April 26 and 27. Copies of the Constitution and By-Laws are available to prepayment plan officials. The organization's office will be in the headquarters of the American Medical Association, Chicago.

Two million eight hundred thousand (2,800,000) was the reported enrollment on December 31, 1945, of the Medical Society and/or Blue Cross sponsored prepayment plans. This is an increase of 114 per cent over the enrollment of one year ago.

Seven plans increase over 100 per cent in enrollment during the past year. These are Colorado Medical Service, Dallas County (Texas Medical Plan), Massachusetts Medical Service, Surgical Care, Inc. (Kansas City), Western New York Medical Plan, Inc., Medical Service Association of Pennsylvania, New Hampshire Physicians' Service, Surgical Care (Milwaukee).

Seven plans over 100,000 in enrollment at the end of 1945. First is Michigan Medical Service with 858,235; second, the Washington State Bureaus with 250,000; third, Massachusetts Medical Service with 206,729; and fourth, California Physicians' Service with 202,000. Other plans over the 100,000 mark are: United Medical Service (New York); Hospital Savings Association (North Carolina); and Hospital Care Association, Inc. (North Carolina).

Twenty-eight states now have prepayment medical care plans. These are Alabama, California, Colorado, Delaware, Florida, Iowa, Kansas, Louisiana, Massachusetts, Michigan, Missouri, Montana, Nebraska, New Jersey, New Hampshire, New Mexico, New York, North Carolina, Ohio, Oklahoma, Oregon, Pennsylvania, Texas, Utah, Virginia, Washington, West Virginia, and Wisconsin. Not every plan is in operation but will be in the near future.

Seventy plans are included in the twenty-eight states named above. However, for tabulation purposes the twenty Washington State Bureaus and the five Oregon Plans might better be set forth as two state-wide plans, thus reducing the quoted total to forty-seven plans. Nineteen states have only one plan, in most cases state-wide. Four states have two plans each, a state-wide plus a local plan or two plans dividing the state. Three states have three plans. One state has five plans, and one state has six plans.

The ten Medical Plans launched in 1945 are: Alabama Hospital Service Association (by rider), Iowa Medical Service, Hospital Service of New Orleans (by rider), Missouri Medical Service (St. Louis), Nebraska Surgical Plan, Central New York Medical Plan, Inc. (Syracuse), Medical Mutual of Cleveland, Oklahoma Physicians' Service, Group Medical and Surgical Service (Dallas, Texas) and Surgical Care, Inc. (Roanoke, Va).

Three local plans in process of organization are the Genessee Valley Medical Expense and Indemnity Corp. (N. Y.), Medical Expense Corp. (Rochester, N. Y.), and Northeastern New York Medical Service, Inc. (N. Y.).

BLUE CROSS

The Blue Cross Commission reapproved the 86 hospital service plans at its March meeting in Cincinnati. Total enrollment of all plans was announced at 19,989,205 persons.

The South Carolina governor has signed a bill, known as the Blue Cross Bill, which will allow the organization of a state-wide hospital plan. The State Medical Association had a large part to play in bringing about this program.

Rhode Island is the first state to enroll 50 per cent of its population in Blue Cross. Other states with excellent percentage records are: Delaware, 40%; Massachusetts, 35%; Ohio, 31%; Connecticut, 30%; Colorado, 29.5%; District of Columbia, 29%; New York, 26.5%; and Minnesota, 25%.

Several Blue Cross Plans are experimenting with individual enrollment. Their experience should be helpful to medical plans.

The use of newspaper advertising has proved successful in increasing Blue Cross enrollment. For example: In 20 months Massachusetts Hospital Association more than doubled its enrollment, from 603,000 to 1,345,000 . . . A four weeks' campaign in New York City produced 45,000 mail inquiries of which 30,000 turned into applications . . . In Harrisburg, Pennsylvania, three newspaper ads brought 1,719 mail inquiries and in Portland, Maine, one ad brought 1,225 inquiries.

Statement of Dr. Edward H. Cary, Chairman of the Board of Trustees of the National Physicians Committee on S. 1606 "The National Health Bill" Before the Senate Committee on Education and Labor

I want to thank you, Mr. Chairman, for the invitation to appear and offer testimony before this important Committee on Education and Labor of the Senate.

My being present is the result of an interchange of seven or eight telegrams between Senator Murray and our headquarters in Chicago. In answer to the first invitation we requested the privilege of having seven witnesses appear each one of whom would briefly cover a different aspect of the problem. We stated "we believe the issues involved in S. 1606 are of such importance that attempts to present all phases of our viewpoint by one person at one session would be grossly inadequate."

In effect, Senator Murray replied that the overcrowded schedule of witnesses practically precluded the possibility of allowing more than one witness to appear. I should like to file for the record copies of the telegrams that finally resulted in my being here and undertaking the task of placing in evidence, point of view and testimony on behalf of the National Physicians Committee on S. 1606. I welcome the opportunity to approve, with qualifications, portions of this Bill and register our unqualified opposition to other parts of this proposed legislation. Our position is well known.

In a superficial review of the testimony that has been offered before this Committee, it is obvious that an effort has been made to classify the witnesses on the basis of radicals or reactionaries, liberals or conservatives. For more than forty years, I have been practicing medicine. I can claim some knowledge of the scientific advancement in medicine during this period. I have tried, with some degree of success, to keep abreast of these unparalleled developments. I should like to stress a fact that is generally recognized. The most radical and most ruthlessly revolutionary forces in the world are the cold, unalterable findings of science. Imaginings, theories, speculations and vain desires inevitably must give way before established truth. I am a devotee of science. I accept its dictum and hence must be voted as a radical and in this sense even a revolutionary.

On Tuesday evening of this week — April 16 — during the discussion period after "The American Forum of the Air" broadcast over a nation-wide network, a proponent of this legislation stated: "The National Physicians Committee has spent one million dollars for the publication and distribution of one pamphlet." This in some respects is a flattering statement. This amount is more than the total that has been spent by the N.P.C. over a period of six years of operation. Some interest has been manifested in these expenditures. The Committee's expenditures by years have been:

For twelve months ending October 31, 1940	$150,131.29
For twelve months ending October 31, 1941	63,438.70
For twelve months ending October 31, 1942	77,657.73
For twelve months ending October 31, 1943	151,937.31
For twelve months ending October 31, 1944	223,176.48
For twelve months ending October 31, 1945	239,017.72
Total expenditures, six years	$905,359.23

During this period we received—in the form of voluntary contributions from individual physicians and physician groups—$492,079.04—or 54.3% of the total expenditures. These came from slightly more than 22,000 doctors. More than 90% of other revenues came from 97 business firms generally classified as manufacturing pharmacists and allied industries. We have never received one dollar of contributions from any commercial insurance company.

Immediately preceding the opening of these hearings, namely on Friday, March 29, 1946, the Leftist New York daily newspaper, PM, published a double page spread devoted to a diatribe against the Committee, of which I am Chairman. The publication of this childish attack is too opportune to take on even the semblance of coincidence. I quote from the first paragraph: "A sordid tale of medical intrigue and unprincipled propaganda, conducted behind a hypocritical mask of professional dignity, may be unfolded in the course of the Senate hearings on the Wagner-Murray-Dingell Bill for national health insurance, which start next week." Further quoting from this remarkable story, "The main propaganda weapon of the National Physicians Committee is a 24-page pamphlet entitled 'Showdown on Political Medicine' which has been distributed bv the millions as a purported 'primer on the meaning of President Truman's message to Congress on Medical Care and Health (November 19, 1945) and the new W-M-D Bills.' The pamphlet finds 'acceptable' three provisions in the W-M-D Bill providing for Federal grants to states for control of tuberculosis and venereal disease; extension of maternal and child health services through Federal aid; and Federal grants to states to provide medical care for the needy . . . The main bulk of the pamphlet is filled with an all-out attack on the Bill's vital provision—the one establishing a national compulsory health insurance system giving virtually complete hospital and medical service, together with limited dental and nursing care, to all Americans who work for a living, and to their dependents."

This is a fairly accurate statement. For the record, we want to make it perfectly clear that the National Physicians Committee for the Extension of Medical Service, at this time and at all times during its existence, has devoted its efforts toward extending better and better medical care to more and more people in the United States, and will vigorously work to achieve this better and better medical care for more and more people.

The reasons for the National Physicians Committee's approving the first three clauses of the Wagner-Murray-Dingell Bill and opposing the Compulsory Health Insurance Provisions, are obvious and clear-cut.

Part A of S. 1606—"GRANTS TO STATES FOR PUBLIC HEALTH SERVICE" (Page 1 of the Bill).

The medical profession and the public, when it is explained, are in favor of steps to be taken to provide treatment and control of tuberculosis and venereal disease and extending the Public Health Services through grants-in-aid to States with State control and local administrative authority.

Part B of S. 1606—"GRANTS TO STATES FOR MATERNAL AND CHILD HEALTH SERVICES" (Page 13 of the Bill).

With minor amendments, this section would become acceptable and would provide an effective mechanism for the achievement of very desirable objectives.

Over a long period of time, the Medical Profession has maintained that the activities of the Children's Bureau should be placed under the supervision of the Surgeon General of the Public Health Department. It is believed that this is not only a desirable but an almost necessary feature, leading to the coordination of various Health activities throughout the United States.

The second suggested change has to do with the centralizing of training of Health Service Personnel. It is not considered that this is a deciding factor. It is considered to be a desirable one, with the idea of imposing upon State agencies the responsibilities for training Maternal and Child Care Personnel.

The really vital and essential change can be accomplished by slight modification in Sub-section 8 of Section 122, at the top of Page 16. This paragraph should be altered to read as follows:

"Provide that as services and facilities are furnished under the plan, they shall be available to all mothers and all children in the State and locality, WHO ARE UNABLE TO PAY FOR SUCH SERVICES WITHOUT HARDSHIP, and where such hardship is confirmed by the local unit of the State Agency."

It is obvious that such a change is fundamental. However, such a modification of Section 8 would insure effective Maternal and Child Care for every mother and every child in this country. It would relieve the Federal Government of a financial obligation that would run into billions of dollars of expenditure annually. It would maintain the independence of the Medical Profession and insure to all the highest possible quality of medical care.

Part C—"GRANTS TO STATES FOR MEDICAL CARE OF NEEDY PERSONS" (Page 26 of the Bill).

It is our studied opinion that by the addition of some twelve or fifteen words in Section 181 of Part C of S. 1606, provision could be made for the achievement of the avowed objectives of all the protagonists of Compulsory Health Insurance in this country. The changes would be—Line 5, inserting the words "including hospitalization" after the word "care," and deleting in Line 6, the word "needy" and inserting after the word "persons" the words "to whom the payment for such services would be a hardship." This vital paragraph would then read as follows:

"For the purpose of enabling each State to provide medical care including hospitalization as far as practicable under the conditions in such State, for persons to whom the payment for such services would be a hardship there is hereby authorized to be appropriated for the fiscal year ending June 30, 1946, the sum of $10,000,000 and there is hereby authorized to be appropriated for each fiscal year thereafter a sum sufficient to carry out the purposes of this part. The sums made available under this section shall be used for making payments to States which have submitted and had approved by the Social Security Board (hereinafter referred to as the "Board") State plans for medical care of needy persons."

Thus, modified Section B of S. 1606, would create the machinery for establishing State Agencies which would be provided with funds to insure full medical care through local groups to every man, woman and child in the United States.

Under such provisions, all the objectives so extensively detailed under Title II of S. 1606 would be provided, but would require the "matching" of all Federal funds with State funds for the accomplishment of the purpose. This would eliminate the necessity for the limitlessly cumbersome machinery that would be entailed under the provisions of Title II of this proposed legislation, and let us set about the task of providing medical care on a basis that is—

(a) Actually preferred by the people of the United States.

(b) Wholly acceptable to the Medical Profession.

(c) That would insure the continuation and further improvement of the most effective medical service that has ever been provided.

In addition to approval, as qualified, of Clauses "A," "B" and "C" of S. 1606, we are wholeheartedly in favor of the Hill-Burton Bill S. 191, which, on December 11, 1945 was passed by the Senate and now is awaiting action by the House. Due largely to concentration on essential war efforts and the resulting lag in construction of health facilities, there is an urgent need for health center and hospital buildings. This need is universally recognized.

The Hill-Burton Bill (S. 191) would make available Federal funds for surveys of hospital needs and grants-in-aid to states, and grants to political subdivisions and non-profit agencies to supplement local funds to insure the building of adequate facilities. It has our unqualified approval.

The PM story stated that the main bulk of the National Physicians Committee literature is filled with an all-out attack of the Bill's vital provision—one establishing a national compulsory Health Insurance System. It is obvious that if the actual purpose of this legislation is to provide full medical care for all persons to whom payment would be a hardship, full and adequate provision will have been made by enacting into legislation the first three sections of S. 1606, with the safeguards that have been indicated and Senate Bill S. 191.

Our opposition to Title II of S. 1606 is based on:

(a) Our conviction that the establishment of this kind of a system would lead to a serious deterioration in the quality of medical care for all people, rich and poor alike.

(b) It would establish a core of centralized control, applying to the most sacred and vital wants of every human being, which once established would require a miracle for Free Enterprise in any of its forms to survive.

Title II of this legislation is truly and limitlessly revolutionary in its purpose and scope:

(First)

It would introduce an actually revolutionary concept in Social Security, as we know it in the United State. Under existing law, Employment Offices are maintained—under Federal and State Control—to find jobs for the unemployed. Provisions are made for aid to the aged, the blind and for dependent children. Payments are made in cash.

To beneficiaries under the Social Security Act, compensation is paid during period of unemployment. Payments are made in cash. Retirement benefits, death benefits for surviving relatives, monthly allotments for widows and dependent children are provided. The payments are made in cash. The new Wagner-Murray-Dingell Bills would place in the hands of the Federal Government responsibility for providing medical care and hospitalization for all Social Security beneficiaries and their dependents. Authority is given a single political appointee to hire doctors and establish rates of pay; to control and operate hospitals and actually dispense medical care to 110 million people. No cash payments are involved. Assuming that at least 100,000 physicians would be needed to service the plan, then in effect, the Federal Government would establish 100,000 retail medical outlets, man them and conduct the business of providing medical care, to say nothing of dental, hospital and nursing services also provided for in the Bill.

(Second)

Such a move would represent a revolutionary change in our whole concept of the distribution of medical care and of medical care, as such. It presupposes standardization and mechanization of administering medical care.

Such procedure would involve making the doctor subordinate to the bureaucrat. It would mean the regimentation of the medical profession.

Consumation of the plans inevitably would result in absolute regimentation of the people as far as medical care is concerned. They would be forced by law to accept such medical care as could be provided by the politically appointed administrator, or pay twice for the same service.

There are few people in this or any other country, even among the supporters of this revolutionary legislation who do not acknowledge the actual superiority and effectiveness of the type of medical care that is provided by our free and independent medical profession. There are some factors in this situation that are somewhat difficult to understand, but they are vital to an intelligent solution of the problem which is generally recognized.

This vital quality of American medicine is aptly described in an editorial in a recent issue of the Journal of the American Medical Association, which quotes as follows from Sir Lionel Whitby in his inaugural lecture as regius professor of physic in Cambridge University:

"The simple facts are that medicine is both a science and an art. It is true that medicine will never be an exact science, because the normal variations in individuals have such a wide range that automatic and mechanical treatment is prohibited, whilst every patient requires a different method of approach according to his psychology. But one of the attractions of the profession is the personal and individual character of its practice: the latitude with which a qualified doctor may exercise his own judgment, express his own opinions and practice his own art. This, indeed, is one of the strongest objections to nationalization and standardization. If the profession of medicine be robbed of its scope for individuality, the soul will go out of it."

This can all be simply covered by the statement that medical care such as has been provided the American people, cannot be measured by the hour, piece or pound. The National Physicians Committee has been and will continue to be in vigorous and uncompromising opposition to entrusting to any centralized authority the responsibility for the distribution of medical care and hospitalization for 110 million people. The proponents of this legislation attempt to make the public believe that more people would secure better medical care. On the basis of every experience, the reverse is the inevitable result.

During the course of these hearings some statements have been made which may or may not actually contribute to the factual information that should lead to a satisfactory solution of the problem of the distribution of medical care. In the course of his remarks before the Committee, Senator Claude Pepper departed from the normal practice with the following statement, which I quote: "I have no doubt that the opponents are quite sincere, but it is difficult not to stress that many of them simply parrot unsubstantiated slogans issued by a propaganda organization, financed to a great extent by certain patent medicine manufacturers, namely, the National Physicians Committee."

I am the Chairman of the Board of Trustees of the National Physicians Committee, and have been since the Committee was organized in October, 1939. I think it essential that it be known that the National Physicians Committee for the Extension of Medical Service is exactly what its name implies. It is strictly an Independent Committee, representing physicians throughout the United States. It has many local and state groups that support its point of view.

The term "patent medicine manufacturers," used by Senator Pepper, was apparently one of disdain, intended to discredit the institution of which I am a part. For the record, may I say that during its more than six years of operation, not one of these so-called "patent medicine manufacturers" has endeavored to influence the policies or point of view of the Committee, or exert any influence in the expenditure of its funds. Actually, these firms to which Senator Pepper has referred are almost exclusively "manufacturing pharmacists." These are the institutions that gave to us for war use the sulfa drugs, atrabine and penicillin. These are the firms which, with mass production techniques, became a deciding factor in the saving of lives within our Armed Services. Of them, Colonel Perrin H. Long said less than a week ago, "Their genius for organization and production should receive the highest praise from a grateful people."

A bulletin recently received from the British Medical Society stated, "Their genius for mass production (referring to atrabine, the sulfa drugs and penicillin) became a vital factor in the winning of the war.

I want to place myself on record as being proud of having as supporters these men of the Pharmaceutical Manufacturing Industry, who have so valiantly contributed both in times of war and peace.

We do not have to go far afield for actual examples of the results of the political distribution of medical care in the United States. Less than a year ago, the discovered abuses within the Veterans' Administration provided irrefutable evidence of nepotism and patronage dispensing, that led to carelessness and a lack of effectiveness in action that actually startled the United States. This was of such a nature and of such proportions that General Bradley, the new administrator of the Veterans' Service, has approached the solution of care for the veterans on a wholly different basis, decentralizing the control and attempting in every case, as nearly as possible, to provide veterans with the type of medical care that is available to the civilian population.

In September of last year, the National Physicians Committee engaged the services of Dr. Herbert D. Simpson, Professor Emeritus of Economics of Northwestern University, to make a study of the incidence, development, progress and prospects of physician-sponsored medical care plans throughout the United States. In the text of this prepared study, now in the hands of the publishers, Dr. Simpson points out that physical revolutions always follow in the wake of scientific discovery and revolution; that there must always be a lag between the scientific development and its universal application.

Approximately 150 years ago, the steam engine was invented. It led to what is now known as the "Industrial Revolution." Fifty years ago, the internal combustion engine was developed. Certainly, it has revolutionized transportation throughout the world, making possible the automobile and the airplane. However, nearly half a century passed before twenty million automobiles dotted our highways. Scientists have discovered the principles, applied them and invented the atomic bomb. The repercussions from this development will be visible in concentric circle form for all of the remaining generations of men.

During the last 150 years, the progress in the scientific development of medicine has been without parallel in the annals of history. During the last fifty years, the range of knowledge has so expanded and the discoveries have been of such import, that it amounts to an actual revolution. Dr. Simpson points out that we are in the process of applying this new knowledge on a universal basis. Given time, we can—without sacrificing our birthright of independence and freedom—continue to provide the American people with the most effective medical care ever imagined in this world, made available to an ever greater and greater number of people. I, personally, am not afraid of revolutionary change, if the change represents progress. The proposals under Title II of this Bill represent revolutionary change that could not mean anything other than retrogression and deterioration of our medical care and the loss, eventually, of our freedom.

DR. CARY'S CONCLUDING ORAL REMARKS BEFORE SENATE COMMITTEE ON EDUCATION AND LABOR

April 19, 1946

Mr. Chairman, in my prepared statement I indicated that it would require the lengthy testimony of several witnesses in order to express adequately the point of view of the vast majority of doctors on the radical and revolutionary proposals contained in S. 1606, and to illustrate what I mean I should like to conclude my testimony by pointing out very briefly some of the points which I believed may be passed over during the course of these hearings; for example:

1. I am sure, Mr. Chairman, that should this legislation approach enactment there will be a mighty rush of the groups who desire to be excluded from its provisions. The rush to get out of the bill will become so widespread that the whole compulsory health insurance program will degenerate into a simple tax on the unorganized who are unable to support and finance a lobby here in Washington to protect their interests.

2. I should also like to allay once and for all the specious argument of inevitability that is being used by the proponents in an effort to stampede the Congress and the people into accepting the principle of compulsory health insurance. That is the same argument which Hitler made for his "new order." When he was warning France and Great Britain and the United States to keep hands off—and permit him to have his way with the small nations of Europe. There are some today who argue that free enterprise is old-fashioned and outmoded, that a government-controlled economy, of which political medicine is a part, must be accepted because it is "inevitable." That type of defeatism doesn't impress me in the slightest, and I don't think it impresses any American who has the gumption to fight for his grand heritage. There is no change in our American form of government which is "inevitable" unless the American people, in their wisdom, determine that that change is desirable and beneficial.

3. And, finally, I believe that if this legislation was submitted to the people in a referendum, with full knowledge of its implications, the voters of this country would finally and forever reject the meddling and the presumption of the bureaucrat to interfere in the sacred relationship of patient and physician, and would cast against this kind of revolutionary legislation the everlasting scorn of a free-born and freedom-loving people.

Mr. Chairman, I wish to express my gratitude for the privilege of coming before your Committee as a representative of the point of view of my organization, the National Physicians Committee for the Extension of Medical Service, which I sincerely believe to be the point of view of the vast majority of physicians.

Smallest bones in the human body are the hammer, the anvil and the stirrup in the ear, points out the Sonotone research laboratories.

SOCIALIZED MEDICINE

Extension of Remarks of Hon. A. L. Miller of Nebraska in the House of Representatives, Monday, April 8, 1946

Mr. Speaker, adopt the Murray-Wagner-Dingell bill and you have not only socialized, but political medicine. Your family doctor will be a memory of the past.

Yes, if this proposed legislation is passed, there will be a new character on the national scene—Uncle Sam, M.D. Doctors will be forced to sign on the dotted line if they desire to practice medicine under his rules and regulations. All fees will be determined by Uncle Sam. The doctor will be told what patients he may see and the patients will be told what doctors they may have. The life of every citizen would be in the hands of a medical czar, not run by doctors, but by politicians, who hang around the courthouses.

Free medicine, unshackled, and with little government interference, is the envy of the world. In 40 years, they have reduced the death rate by 60 percent in the United States. American medicine is unequaled in any part of the world. The Wagner-Murray-Dingell bill would revolutionize our medical institutions and adopt methods controlled by salaried political bureaucrats.

The Murray-Wagner-Dingell bill of 1945 is designed to centralize all social welfare and public health activities, in the hands of a few persons. It has not a stepchild's chance of being passed. The present Congress has no stomach for such stuff and the gentlemen sponsoring this bill know it.

The important question is: "Shall medicine be continued to be practiced by men and women, who are scientifically trained and who are devoted to the relief of suffering humanity, or shall the practice of medicine be made over by a group of medically untrained bureaucrats, who will use the medical profession as a tool, and the sick as their clay in molding a huge political machine?"

Mr. Speaker, the Murray-Wagner-Dingell bill proposes a complete revolution of medical practice in the United States. All institutions concerned in the prevention, diagnosis, and treatment of disease would have to modify their method of rendering service under this bill. The type of medical education and research and the administration of hospitals would be grossly altered. The immediate results of such a revolution would certainly be destructive.

The arguments for socialized medicine are often tied up with the number of men who were rejected by the Army. There were a great many men rejected because they were physically unfit. But the Army had very high standards of physical requirements. The standard was higher than in any other country. The proponents of socialized medicine never point out that many of those rejected, were rejected because of illiteracy, and this country has had compulsory education for many years. Many were rejected because of mental illnesses and the care of the mentally ill has been under the direction of the Government for many years. The results are not very satisfactory. A large portion of the rejectees had physical defects and deformities which could not have been prevented or cured.

The practice of medicine, under free institutions in this country has advanced the healing art until it is the envy of the whole world. New methods of treating diseases and many new drugs have been discovered. Freemen with great minds have made progress. There has been a ceaseless probing and searching of the unknown for the purpose of curing disease. All of this advancement has been made under a free, untrampled medical practice.

Germany, after 54 years sickness insurance was a happy hunting ground for quacks. It gave a full inducement to all forms of quackery. Preventative medicine in the United States is the envy of the medical profession all over the world. The hospitals in this country have the finest equipment. In Germany, and European countries, which lead in socialized medicine, the doctors failed to take postgraduate courses. The American physician takes more postgraduate courses than any other physician in the world.

I am certain that under the socialized medicine bill, there might be more people under the care of the physician, but less under the stethoscope. Yes; the doctor's time would be taken up in filling out endless forms, with ink on his fingers instead of iodine.

To finance such a huge health program would cost between ten and twelve billion dollars a year. This would be a direct tax upon the employer and the employee. The care the patient would get would be indifferent.

Mr. Speaker, I have had the opportunity of viewing, on three different occasions, socialized medicine as it operates in Europe. The patient gets very indifferent care. You are merely a number and a cog in the machine. No one gives you that personal contact and touch which is so desirable when one is ill. The practice of medicine does involve a personal contact between physician and patient. There comes a time in the life of all of us when cold facts of science do not prevail. The people want personal service with sympathy, particularly cheerfulness and confidence in the doctor. No amount of scientific service can take its place in the dark hours of sorrow and trouble so common in the experience of all of us. These are intangible things, and I have found, as a physician, that through the troubles and situations of life, fame often dies, honor may perish, but loving kindness is immortal.

Mr. Speaker, this socialized health bill assails the rights of life, liberty, and the pursuit of happiness, as promised the people of this Nation by our Constitution. This bill does not spring from our traditions nor from the public spirit. It is an offspring of foreign ideology, first brought to perfection by that German statesman, Bismarck. In every country where fascism, nazism, and socialism prevail, there is socialized medicine. The government makes the people smoke an economic pipe dream and they think they are getting something for nothing.

The United States gained its leadership in medical education and care by methods that have been tested in the crucibles of time and economic hardship. But now it is proposed to abolish these institutions and methods and to substitute others whose trial in many countries has failed to produce health conditions equal to those existing here. The Wagner-Murray-Dingell bill would abolish the voluntary control and inspiration that have brought medical education, hospital management, drug purity research, and medical service to their present high level. As a substitute, the people are offered a system controlled by salaried political bureaucrats.

NEBRASKA STATE DEPARTMENT OF HEALTH

Activities of the Tuberculosis Survey

With the end of the war and the closing of most of Nebraska's War Industries, the case-finding program of the Tuberculosis Survey has been shifted from war plants to the general population. The Mobile Photofluorographic Unit is now engaged in making county-wide chest x-ray surveys in counties where such a program is requested by the local Medical Society. It is also being used to x-ray the inmates and employees of the various state hospitals and penal institutions.

In addition to the case-finding activities, epidemiological studies and public health nursing services on behalf of tuberculosis cases are being carried on as usual. A new central case register of all known tuberculous individuals and their contacts is being compiled from every available source of information. This register will be used in an all-out effort to keep every known case under medical supervision.

In order for this division to carry out tuberculosis control measures successfully it is necessary for physicians to report new cases promptly, so that our central case register will be complete and up-to-date. Reporting has improved greatly; more than twice the number of cases of tuberculosis were reported last year as in the year before. There is still room for improvement, however, in this respect. It is hoped that a simplified and confidential report form for tuberculosis can be supplied to physicians in the near future to facilitate reporting.

The case-finding results of the Mobile X-Ray Unit for a twelve-month period were summarized recently. During this period, in which the unit operated in war industries, state institutions and general community groups, the unit took 3,000 chest x-rays per month. 3% of the films indicated the need for further examination because of findings characteristic of, or suspicious of, tuberculosis. An additional 1½% showed lesions of a non-tuberculous nature, chiefly cardiac enlargement.

A significant number (40%) of those individuals whose survey films showed tuberculous pathology have been re-examined by 14"x17" x-rays and clinical examinations. From the findings in the re-examined cases it is estimated that one out of every hundred people who passed through our Mobile X-ray machine last year has active tuberculosis.

E. A. ROGERS, M.D.,
Director Division of Tuberculosis Survey.

Immune Globulin

Immune serum globulin (human) may be secured from the Nebraska State Department of Health upon request of the physician, as long as it is received from the stock made available by the American Red Cross. This material, which is of value in the prevention or attenuation of measles, is a by-product of the plasma fractionation process. It has been extracted from blood obtained from volunteer donors enrolled by the American Red Cross and is supplied for civilian use without charge for the product. 3,200 cc. have been distributed to Nebraska physicians in the past two months.

This concentrated solution of the gamma globulins (Fraction II) of pooled normal human plasma includes only 5% of the total plasma proteins. It has been shown to be 25 times as potent as plasma in its content of the specific immune bodies against measles. Human blood provides the only known source of measles antibody.

Complete passive immunization against measles may be expected from intramuscular injections of an effective dose of antibodies but it is transitory and seldom endures longer than a month. This procedure is most often used only for those for whom even a mild attack would be an undue risk or when dealing with case contacts under three years of age.

The injection should be administered within 5 days after exposure—further delay increases the number of failures. A dose of 0.08-0.1 ml. per pound of body weight will generally prevent the disease while a dose one-fourth as large usually produces a mild attack. Partial protection resulting in a modified case confers as lasting a protection as does a typical infection, thus it is often well to modify rather than to prevent. Mild local reactions, according to C. A. Janeway, M.D., of the Department of Pediatrics, Harvard Medical School, occur in less than 1% of children injected.

Whole blood, convalescent sera and placental extracts may be used in the same way but much larger quantities are required because of the low concentration of antibodies, and they commonly produce reactions around the site of injection. Convalescent serum has little advantage over adult serum. That is, the immune bodies show little decline following initial development.

The gamma-globulin fraction contains most of the antibodies normally found in adult plasma, and those for typhoid, mumps, diphtheria, scarlet fever, B. streptococci and measles have been identified; however, its use has shown results only in the treatment of measles.

CHAS. P. BERGTHOLDT.

Social Hygiene Institute

The Venereal Disease Division of the State Department of Health cooperated with local health agencies, civic groups, and welfare and medical groups in sponsoring Social Hygiene Institutes in Omaha and Lincoln, April 29th and 30th, and May 1st, 2nd, and 3rd. Three out-of-town speakers participated in the programs which were presented. Dr. Percy S. Pelouze, Special Consultant to the U. S. Public Health Service, and nationally famous author of medical books, presented the medical and public health aspects of the venereal disease program of the American Social Hygiene Association. Miss Eleanor Shenehon, Director of the Division of Community Services of the American Social Hygiene Association, spoke at several meetings on the community's responsibility for social hygiene organization. Mr. Alfred McLarty, Field Representative, Social Protection Division, Federal Security Agency, presented facts and suggestions for action in the field of social protection.

Local speakers who participated in the program were Miss Maude A. McCarter, Public Health Nurse Consultant of the Division of Venereal Disease Control, State of Nebraska Department of Health, who spoke in both Omaha and Lincoln, on the social aspects of the venereal diseases. Mr. Don A. Warner, Director of Special Services in Omaha Public Schools, spoke at the Omaha meeting on social hygiene education.

Aside from the general meetings of the Social Hygiene Institutes in both Omaha and Lincoln, special meetings were planned for the speakers. Dr. Pelouze spoke on May 2nd at a luncheon to the Lions Club in Lincoln, and again at a special meeting of the Lancaster County Medical Society in Lincoln. In Omaha Dr. Pelouze spoke to the staff at the Intensive Treatment Center, as well as to the Visiting Nurses Association. Miss Shenehon spoke to the Co-Operative Club in Lincoln at a luncheon on May 2nd.

These Social Hygiene Institutes are being conducted at this time as part of a general program on venereal disease control and preparation for family life, which is being conducted over the United States. This type of program is thought to be especially desirable at this time since the enthusiasm which was experienced during the war period in the field of social hygiene, especially in the control of the veneral diseases, has begun to wane and somewhat die out. It is hoped that interest can be aroused in venereal disease control at this time so that we may not lose ground or in any way recede to the pre-war levels or standards.

W. B. QUISENBERRY, M.D., M.P.H.,
Director Division of Venereal
Disease Control.

NEBRASKA SURGICAL PLAN
CASH RECEIPTS AND DISBURSEMENTS
April 30, 1946

Cash on hand April 1, 1946		$29,641.23
Receipts:		
From dues	$11,160.12	
From enrollment fees	786.00	
Taxes deducted from salaries	4.30	11,950.42
		$41,591.65
Disbursements:		
Administrative expense	1,041.00	
Claims paid	2,339.50	
Salary, Executive Director	150.00	
Secretary's fee	25.00	
Advertising	71.70	
Printing and stationery	95.20	
Attorney	40.00	
Refunds	95.75	
Miscellaneous	2.00	
Home office travel and expense	96.20	
Collection expense	5.41	
Taxes paid	17.40	
Medical adviser	30.00	
Dues	23.75	4,032.91
Cash on hand, April 30, 1946		$37,558.74
Bank Balance, April 30, 1946		$37,558.74

NEBRASKA SURGICAL PLAN
BALANCE SHEET
April 30, 1946

Assets:			
Cash in bank		$37,558.74	
Premiums in process of collection		NONE	
U. S. Bonds (cost plus accrued interest)		10,035.55	
Prepaid insurance premiums		82.92	47,677.21
Liabilities:			
Accounts payable, Blue Cross		1,262.10	
Accounts payable, monthly invoices		603.83	
Accrued payroll taxes		5.80	
Claims payable		1,100.00	
Accrued audit expense		100.00	
Unearned premiums		15,423.83	
		18,495.56	
Subscribers 4% Surplus Notes	$19,450.00		
Net income to date	9,731.65		
		$29,181.65	
			$47,677.21

NEBRASKA SURGICAL PLAN
INCOME AND EXPENSES
April 30, 1946

	April 1946	4 Months to Date
Income:		
From dues	$ 6.310.50	$19,676.00
From enrollment fees	786.00	1,959.00
	$ 7,096.50	$21,635.00
Expenses:		
Claims	2,539.50	9,562.50
Salary, Executive Director	150.00	600.00
Legal	40.00	160.00
Auditing	25.00	100.00
Advertising	289.35	560.03
Printing	314.48	735.88
Insurance	20.00	80.00
Administrative expense	1,262.10	3,935.20
Home office travel and expense	10.00	146.20
Professional fees	25.00	100.00
Collection expense	5.41	8.21
Taxes and licenses	1.50	36.00
Miscellaneous	2.00	3.00
Dues	23.75	27.50
Medical adviser	30.00	120.00
	$ 4,738.09	$16,174.52
Net Gain	$ 2,358.41	$ 5,460.48

MEMBERSHIP SUMMARY—APRIL, 1946

	Subscribers	Dependents	Total
1. Membership, April 1, 1946	4,134	5,257	9,391
Additions	711	1.039	1,750
Cancellations	62	80	142
Net Gain	649	959	1,608
Membership, May 1, 1946	4.783	6.216	10,999
2. Number of groups now enrolled			334
3. Number of groups added during April			22
4. Members enrolled by salesmen:			
M. W. Ashton (outstate)		364	
W. V. Jones (Omaha)		105	
B. R. Lohnes (Omaha)		79	
G. S. Malone (outstate)		121	
C. H. Smith (Omaha)		6	
Office		36	
		711	

APRIL ENROLLMENT BY COMMUNITIES

OMAHA—10 groups, 207 members: Douglas County Gravel Company, Gearhart Feed and Coal Company, Happy Hours Club, Juvenile Court, Omaha Seat Cover Company, Remington Rand Company, St. Catherine's Hospital, Ted's Pen Shop, Uncle Sam's Breakfast Food Company, United States Engineers.

GRAND ISLAND—1 group, 10 members: Grand Island Electric Company.

BENKELMAN—1 group, 266 members: Benkelman Community Group.

FREMONT—7 members.

KEARNEY—1 member.

YORK—2 members.

NEBRASKA CITY—1 member.

HASTINGS—4 groups, 101 members: Adams County Welfare Department, Brach's, Swift and Company, Topp's Floral Company.

LINCOLN—3 groups, 68 members: House of Bauer, St. Paul Business and Professional Women's Club, Union Loan and Savings Association.

NORTH PLATTE—2 groups, 20 members: First National Bank, Rhoads Company.

OXFORD—1 group, 11 members: Oxford School.

FALLS CITY—2 members.

SCOTTSBLUFF—12 members.

BEATRICE—3 members.

DEATHS

Kilian, Leo Julius, Wayne. Born in Columbus, 1889. Attended Virginia Polytechnic institute and Washington University School of Medicine where he received his doctor's degree in 1913. He located in Blair in 1917 and in 1918 entered the U. S. Army Medical Corps and received honorable discharge as a Captain in March, 1919. He returned to Blair, and in 1921 moved to Wakefield where he remained until 1941 and then located in Wayne. Dr. Kilian was active in professional and civic affairs, having served as president of the County Medical Society and at various times as delegate to the House of Delegates to the Nebraska State Medical Association. He also served as post commander of the American Legion and belonged to many church and fraternal organizations. Died April 27, 1946. Surviving are his wife and his mother, a sister and a brother.

Temple, Claude H., Memphis, Tenn., formerly of Lincoln. Retired. Born 1873. Graduated from Lincoln Medical College in 1894. Died April 16, 1946. Surviving is his son, residing in Memphis.

HUMAN INTEREST TALES

Communications bearing human appeal are solicited. They should be addressed to The Editor, Nebraska State Medical Journal, Mezzanine No. 3, Medical Arts Building, Omaha.

Dr. Roy W. Fouts, Omaha, announces the association with him of Dr. G. Prentiss McArdle.

Dr. S. M. Rathbun was recently appointed city physician at Beatrice. He succeeds Dr. W. T. Wildhaber.

Dr. T. J. Andrews, one of Fairbury's early physicians, celebrated his 95th birthday on April 20. The doctor is retired.

Dr. H. F. Elias of Beatrice recounted his war experiences before a recent meeting of the local Chamber of Commerce.

Dr. W. A. Shreck, Holdrege, celebrated his fiftieth anniversary as a practicing physician in Phelps County on May 1.

Dr. Charles Arnold, Lincoln, spoke on his experiences in the army hospitals in France before the University Place Lion's club in April.

Dr. Charles Rudolph, medical director at the State Hospital, Kearney, is on a six-months leave from the hospital on account of his health.

Dr. Herman E. Kully, Omaha, was recently appointed director of the Department of Otolaryngology, Creighton University School of Medicine.

The Sixth Councillor District medical society recently honored Dr. A. E. Stuart of Cedar Bluffs on his .60th year of medical practice at a banquet at Wahoo.

The improvement in medical procedures in war time was told by Dr. O. V. Calhoun, Lincoln, to Rotary Club members. Dr. Calhoun was recently released from the navy.

The Journal extends its sympathy to Dr. George W. Covey, Lincoln, on the recent death of his wife; and to Dr. H. D. Kuper, Leigh, upon the recent death of his father, Dr. J. A. Kuper of Nelson.

Dr. A. E. Bennett, Omaha, addressed the Annual Central District Medical Association at Rock Island, Illinois, in May. His subject was "Common Medical and Surgical Errors in Psychosomatic Syndromes."

BOOK RECEIVED

A Malariologist in Many Lands by Marshall A. Barber. 158 pages including index, with illustrations. University of Kansas Press, Lawrence, Kansas, 1946. (Attaching reviewer's leaflet).

ROSTER OF NEBRASKA PHYSICIANS IN MILITARY SERVICE

As of May 15, 1946

ADAMS COUNTY
Shaw, W. L., Hastings
Uridil, C. F., Hastings

BOONE COUNTY
Higgins, J. P., Albion

BOX BUTTE COUNTY
Morgan, R. J., Alliance

BUFFALO COUNTY
Albertson, L. C., Kearney
Dickinson, L. E., Ravenna
Hayes, C. B., Kearney
Wilcox, M. B., Kearney

CASS COUNTY
Anderson. R. R., Nehawka

CHEYENNE COUNTY
Bush, Stuart K.

CUMING COUNTY
Krause, Richard A., West Point
Robbins, H. M., West Point
Thompson, L. L., West Point

CUSTER COUNTY
Koefoot, Ted, Jr., Broken Bow
Leonard, Patrick, Broken Bow

DAWES COUNTY
McElligott, E. W., Chadron

DAWSON COUNTY
Anderson, A. W., Lexington

DODGE COUNTY
Byers, R. C., Jr., Fremont

DOUGLAS COUNTY
OMAHA
Avery, Hiram Henry
Barber, Herbert Gordon
Bowers, Warren F.
Carp, Oscar, Int.
Crawford, Wm. Henry
Curti, Ralph Elmer
Dolce, Daniel D., Int.
Dornberger, G. R.
Everitt, Neill J.
Fogarty, Chas. James
Gross, Jos. J.
Green, Chas. Joseph
Harms, H. H., Int.
Hartford, Thos. J.
Hennegan, Geo. F.
Henrich, Leo. Chas.
Hoekstra, Clarence, S., Int.
Kemp, Wm. T.
Koutsky, Jas. John, Int.
Krieg, Jacob J., Int.
Lierman, C. E., Int.
Mangiameli, Carl L.
Mooater, Chas. J., Int.
Nurenberger, Robt. E.
Patton, John Erwin
Peterson, Wendell Case
Penry, Richard E., Int.
Reiner, Walter M., Int.
Senter, Vance E., Int.
Strand, Clarence Johnson
Wendland, John P.

FILLMORE COUNTY
Tucker, John G., Milligan

FRANKLIN COUNTY
Williams, Martin P., Franklin

GAGE COUNTY
Rush, Weaver A., Beatrice
Smartwood, F. M., Adams

HALL COUNTY
Campbell, John F., Grand Island
Johnson, E. George, Grand Island
Rich, Edward W. L., Grand Island

HITCHCOCK COUNTY
Brown, Kenneth W., Stratton

JEFFERSON COUNTY
Lynch, Geo. M., Fairbury

KEARNEY COUNTY
Sutton, Bruce, Minden

KNOX COUNTY
Carrig, M. H., Bloomfield
Green, Carl Raymond, Niobrara

LANCASTER COUNTY
LINCOLN
Bartholomew, P. H.
Colbert, Morgan R.
Everett, H. H., Jr.
Lotman, Harry Alfred
William, Russell I.

LINCOLN COUNTY
Anderson, Gustave Theodore, N. Platte
Anderson, Thorwald R., N. Platte

OTOE COUNTY
Campbell, G. C., Nebraska City
Thorough, Paul H., Syracuse

PAWNEE COUNTY
Harmon, Leo D., Pawnee City
Lowe, DeWitt S., Pawnee City

PHELPS COUNTY
Brewster, Donald E., Holdrege

RICHARDSON COUNTY
Youngman, R. A., Falls City

SAUNDERS COUNTY
Kasper, R. J., Wahoo

SCOTTS BLUFF COUNTY
Black, Eugene W., Gering
Hanna, Joe T., Scottsbluff

SEWARD COUNTY
Clarke, Harry D., Seward

SHERIDAN COUNTY
Sullivan, Paul J., Rushville

THAYER COUNTY
Panter, Lt. E. G., Hebron

WEBSTER COUNTY
Obert, Francis C., Red Cloud

VALLEY COUNTY
Round, John N., Ord

News of Veterans

Dr. R. E. Penry has opened an office in Hebron.

Dr. Frank Vrtiska has opened an office at Dubois.

Dr. R. F. Brendel has opened an office in Plattsmouth.

Dr. F. G. Travnicek has resumed his practice at Wilber.

Dr. Robert T. Jones has moved his office to McCook.

Dr. John A. Rosenau is again associated with the Scottsbluff Clinic.

Dr. Edward V. Avakian of Los Angeles has located at Emerson.

Dr. Merle Harrison has left his practice in Omaha to locate in West Point.

Dr. John L. Batty is associated with the Brewster Clinic at Lexington.

Dr. Kenneth Dalton has become associated with Dr. Homer Davis at Genoa.

Dr. John J. Prusmack has opened an office at 830 City National Bank building, Omaha.

Dr. Jack M. Hayes has become associated with Dr. Ed Walsh at 1412 Medical Arts building.

Dr. Frank A. Barta announces the opening of his office at 462 Aquila Court building, Omaha.

Dr. Roy Matson, who practiced in Holdrege before entering the service, has opened an office at Wayne.

Dr. Henry J. Lehnhoff, Jr., M.D., is associated with Drs. Warren and Chester Thompson at 1530 Medical Arts building, Omaha.

Dr. James D. Bradley, who practiced at Pender previous to service with the Navy, has located at 1607 Medical Arts, Omaha.

Dr. W. E. Holmes has resigned his connection with the Scotts Bluff County Health Department to become associated with the Drs. Gentry at Gering.

Drs. Cassidy and Judd, Omaha, announce the association of Drs. Frank J. Klabenes and Verne H. Alder in the practice of otolaryngology and Drs. George T. Alliband and J. Harold Barr in the practice of ophthalmology.

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COMMITTEE ON PHYSICAL MEDICINE

The need for additional rehabilitation services and centers where the disabled and handicapped can receive post-hospital physical rehabilitation, psycho-social adjustment and vocational guidance and retraining is stressed in the final report of the subcommittee on civilian rehabilitation centers issued recently by the Baruch Committee on Physical Medicine.

The report, prepared by a group of six authorities with military and civilian rehabilitation experience, blueprints the organization and operation of model community rehabilitation centers. Emphasizing that such centers should integrate rather than duplicate the work of existing agencies, it outlines the organization and operation of proposed centers which would offer physical medicine (physical therapy, occupational therapy, physical rehabilitation), psycho-social adjustment, vocational guidance, social service, vocational education, special education for the handicapped, a sheltered workshop, brace and limb shop, research in rehabilitation, and an industrial program for the homebound.

The centers would not provide definitive medical treatment, but would bridge the gap between the bed and the job by following preventive and curative medicine and surgery with what the Committee terms "the third phase of medical care."

The report suggests that the envisioned centers might be established by communities as "living war memorials" by the action of local governments, civic groups, social agencies, or medical schools and hospitals. They point out that both the construction and operating costs of such centers would be considerably less than for hospitals and would release needed hospital beds for sick patients.

Although the Committee does not give exact estimates of the operating costs of such centers as there are no identical institutions which can be used as guides, they express the opinion that the cost of maintenance of in-patients would be comparable to the costs of crippled children's hospitals and convalescent homes. It is pointed out that during 1937-1939 the average per patient day cost for thirty crippled children's institutions in all sections of the United States was $2.79. The cost ran 20% less for those convalescent homes without definitive hospital facilities. The average costs in these same institutions in 1946 is from $3.39 to $4.25 per patient day.

The model center outlined in the Baruch plan is based on an estimated load of fifty dormitory and two hundred out-patients. They estimate the average patient stay at two months, which would result in a case load of 1,500 patients per year. Total program costs for phyical therapy, occupational therapy, medical services, vocational testing, guidance and retraining, and psycho-social adjustment are estimated at $125 per patient, exclusive of dormitory care and food services. Such centers, once established, the Committee believes, would be relatively self-supporting as fees would be received from private patients, the Veterans Administration, state rehabilitation programs, industry and insurance companies.

In addition to large highly specialized urban centers, the report stresses the need for a system of mobile consultant clinics comparable to those which have been used in the cancer and crippled

(Continued on page xxx)

A SAFE *Summer* PRESCRIPTION FOR INFANT NUTRITION

Even under the handicaps of travel or vacation accommodations, a mother can easily prepare a *safe* formula for her infant . . . by just adding cooled boiled water to Biolac according to the physician's directions. The simplicity of preparation (dilution only) minimizes possibilities of formula contamination even under adverse conditions.

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COMMITTEE ON PHYSICAL MEDICINE

(Continued from page xxvi)

children's programs in order to carry opportunity to the isolated, disabled person.

The compilers of the report, which includes itemized equipment lists, detailed organizational charts, and schematic flow charts and floor plans, state in the foreword, "It is recognized that this is only a generalized blueprint and, in considering community plans, the facilities, personnel and problems of the community must be given prime consideration, and the basic plan modified to meet the specific needs of the community."

In issuing the report, Dr. Frank H. Krusen, Director of the Baruch Committee on Physical Medicine, said, "It was recognized early in 1945 that much had been learned in the rehabilitation programs of the armed forces which would be of value to physically and emotionally disabled civilians. The armed forces through their comprehensive rehabilitation programs offered services to disabled servicemen which are available to the civilian handicapped in but a few highly specialized centers in the country. It is the hope of the Committee that this report will stimulate interest in the establishment of such centers and services throughout the nation in order that our civilian disabled may receive the same splendid care that was afforded our disabled servicemen."

The report was prepared by a special committee under the chairmanship of Dr. Howard A. Rusk, Consultant in Physical Rehabilitation to the Baruch Committee on Physical Medicine and Associate Editor of The New York Times; Dr. George G. Deaver, New York University College of Medicine and Medical Director of the Institute for the Crippled and Disabled; Mr. Lawrence J. Linck, Executive Secretary of the National Society for Crippled Children and Adults; Dr. Carl M. Peterson, Secretary of the Council on Industrial Health of the American Medical Association; Mr. Michael J. Shortley, Director of the Office of Vocational Rehabilitation; and Dr. Alfred R. Shands, Jr., Medical Director of the Alfred I. du Pont Institute.

Copies of the complete report are available from the Baruch Committee on Physical Medicine, Room 3500, 597 Madison Avenue, New York 22, New York.

The Baruch Committee on Physical Medicine was established in 1944 by Mr. Bernard M. Baruch, New York philanthropist, with an initial grant of over one million dollars to advance and encourage research, teaching and training in the field of physical medicine.

SQUIBB RELEASES VITAMIN FORMULA FOR DEFICIENCY DISEASE THERAPY

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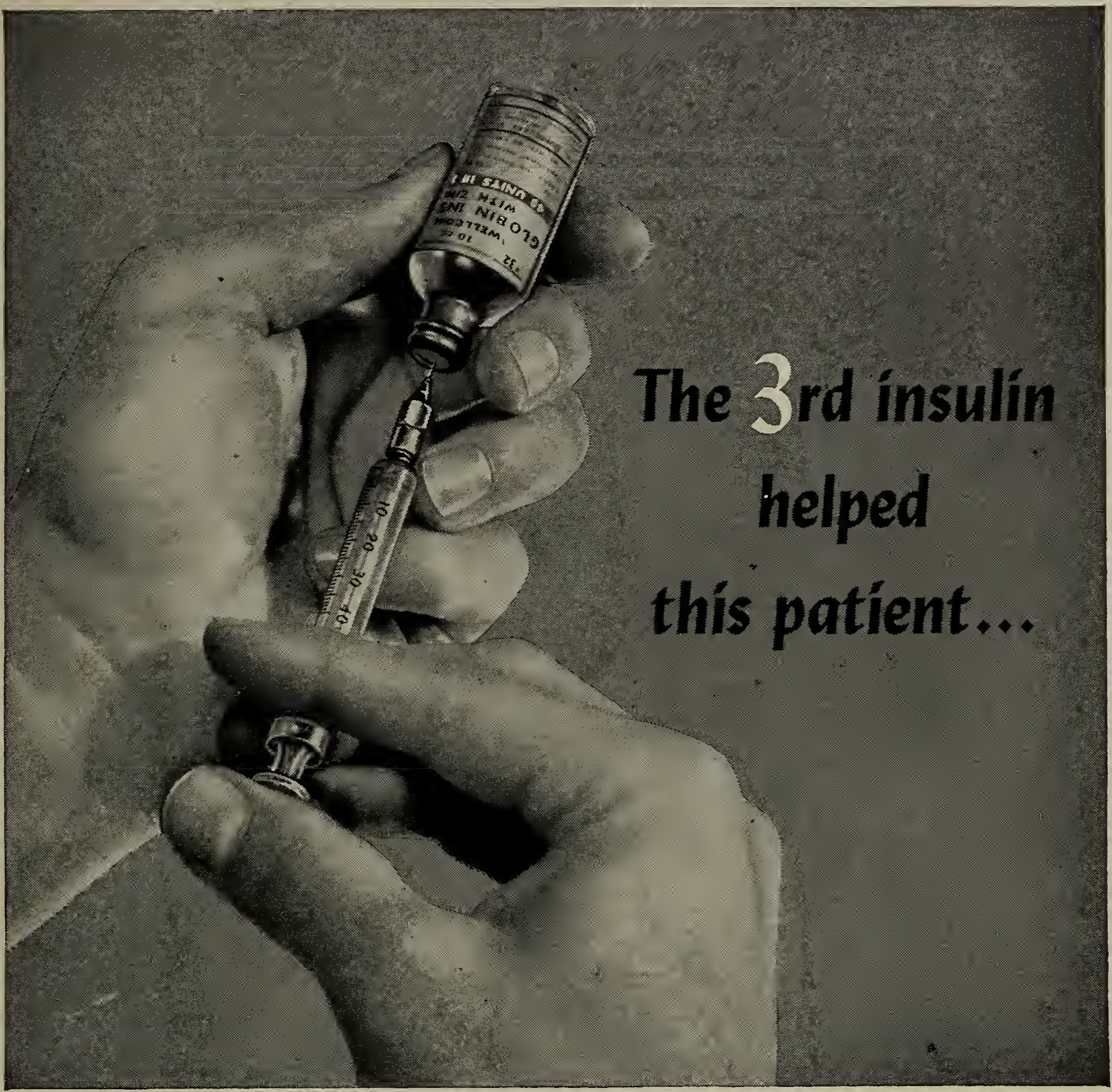

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FIND RHEUMATIC FEVER PATIENT CAN BEGIN TO EXERCISE EARLY

Rheumatic fever patients can begin physical exercises within two weeks after the disease becomes dormant without increased damage to the heart, according to a report in a recent issue of The Journal of the American Medical Association.

Peter V. Karpovich, M.D., Lieut. Col. Merritt P. Starr, Capt. Robert W. Kimbro, Major Charles G. Stoll, Medical Corps, Army of the United States, and Capt. Raymond A. Weiss, Air Corps, Army of the United States, conducted the study on 88 convalescing patients at the AAF Regional Hospital at San Antonio, Texas.

The investigators write that the "conventional delay in the beginning of physical reconditioning was reduced from 77.3 days to 16.2 days without causing an increase in the incidence of cardiac damage during six to 12 months of observation."

Rheumatic fever is a disease which usually recurs frequently, resulting in permanent damage to the heart. It is the most frequent cause of heart disease in persons under middle age. The bacteria hemolytic streptococci are believed to be the accessories, if not the cause, of rheumatic fever.

Medical science has long held a difference of opinion regarding physical inactivity during convalescence after rheumatic fever. The AAF convalescent policy is to recondition patients before their discharge from the hospital and to prepare them, when possible, for full or limited military duty.

Because of the great variation in length of time from the beginning of the dormant period to the beginning of testing, the investigators divided the patients into three groups, A, B and C.

Group A, consisting of 22 men, was living in barracks at the beginning of the study. For these men an average of three months had elapsed since the first day of quiescence.

Group B, consisting of 30 men, had an average of 77.3 days of quiescence before the testing and physical activation began.

Group C, consisting of 36 men, was activated after an average of 16.2 days of quiescence.

The physical fitness tests consisted of executing 12 step-ups in 30 seconds, first on a 12-inch step and, after passing this, on a 20-inch step. The heart reaction was considered normal if the pulse rate was 100 or less after exercising.

The Journal article reports the distribution of definite and possible heart disease among the groups as follows: group A, 5; group B, 4; group C, 1.

"The numbers are too small for justifying conclusive statements. The fact, however, that the average length of rheumatic activity was longest and the duration of the quiescent period shortest in group C, in which the number of cardiac patients was the smallest, indicates that the organized physical training program was safe for these patients."

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SERIOUS HEART INFLAMMATION TREATED SUCCESSFULLY WITH PENICILLIN

Twenty patients with subacute bacterial endocarditis, were treated with penicillin last year at the University of Pennsylvania Hospital, with the result that 16 had definite subsidence of their infection. Of these 12 are still alive, 8 having died of other complications according to a report in The Journal of the American Medical Association.

Harrison F. Flippin, M.D., Robert L. Mayock, M.D., Franklin D. Murphy, M.D., and Charles C. Wolferth, M.D., with the technical assistance of Marjorie Wiley, Philadelphia, wrote that "we employed 300,000 units of penicillin a day for fourteen days as the initial course. This appeared adequate in 14 of the 20 cases. However, in view of subsequent experience with 16 additional cases of the disease, not included in this report, we believe that all patients with subacute bacterial endocarditis should receive at least 500,000 units a day for at least five weeks."

The penicillin was injected into the veins of the patients, but, according to the authors, there is no reason to believe this method is superior to injections into the muscles.

Subacute bacterial endocarditis usually attacks valves of the heart that are already damaged. The germ which is responsible for the condition in 90 to 95 per cent of cases is the streptococcus viridans, while the gonococcus and the influenza bacillus are the causes in 5 to 10 per cent.

Since infection is so dangerous in this disease, the authors urge "as a precaution against reinfection, a careful search for possible foci of infection, such as infected teeth and tonsils, should be made."

Although only 12 patients lived, the authors wrote, that "of the 8 who did not survive 4 were completely free of active infection and died as a result of heart disease. Three patients in this group failed to respond to therapy, and the eighth died soon after treatment was completed as a result of an acute pulmonary embolus."

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EDITORIAL

THE FAMILY PHYSICIAN IN MODERN MEDICAL PRACTICE

Overemphasis on the importance of the specialist and the resultant lowering of prestige of the general practitioner have led two physicians to propose a plan to check the trend.

Writing in the June 8 issue of The Journal of the American Medical Association, S. A. Thompson, M.D., and S. M. Thompson, M.D., of Camden, Arkansas, suggest that the following steps be taken:

1. Recognition of the general practitioner by regimented medicine (this includes the medical service of the military services, the Veterans Administration, medical teaching centers, certain industrial medical plans and other similar systems) through: A. staff appointments for general practitioners in teaching centers; B. general practice services in teaching, military and Veterans Administration hospitals; C. perpetuation of the Veterans Administration's system for care of the veteran in his local community with general practitioners participating.

2. Elimination of causes for criticism of the general practitioner through: A. standardization and improvement of training of general practitioners; B. limitation of the work of the general practitioner to that for which he is adequately trained.

3 Organization of general practitioners to implement these proposals.

At present there are some 160,000 practicing physicians, of whom slightly more than 20,000 are certified by the various specialty boards as qualified in their chosen fields. This makes a ratio of one specialist to eight general practitioners.

Some of the examples listed by the authors in illustration of the present trend toward specialization are:

"The Pepper bill now before Congress would perpetuate the maternal and infant care of the Emergency Maternity and Infant Care Program for all families. A committee from the advisory board to the Children's Bureau recommended that only certified specialists be allowed to participate in this program. The advisory board did not accept the committee's report, but it is indicative of the trend of thinking now in progress.

"In the medical teaching centers where our students, interns and residents are trained and where so many of our low income group receive their medical care, a similar trend is apparent . . . Each patient is seen in a specialty clinic or admitted to a specialty service. All cases, including the most trivial and routine cases handled daily by the general practitioner in private practice, are treated by specialists or under the supervision of specialists.

"More and more prominence is being assumed in private practice by the group clinics, and the trend in these appears to be steadily toward specialization."

Presenting the case for the general practitioner the authors continue:

"The economic waste involved in specialty care for routine conditions has already been mentioned, but, more positively, what has the general practitioner accomplished? During the past 50 years the life expectancy has been increased from 33 to 60 years, maternal and infant mortality has been lowered tremendously, many infectious diseases have been all but eliminated, and numerous other great strides have been made."

Summing up the case for personalized medicine, the physicians say that during the last 40 years "one may safely conclude that well over 90 per cent of medical care to patients has been given by general practitioners . . . Has the general practitioner not been successful in bringing the advances of medical science to the patient? Surely this implies that he is capable of treating patients."

THREE MILLION BABIES BORN IN U. S. DURING 1945

The more than three million babies born in the United States in 1945 reflect the continuing increase in the birth rate for the past several years. It is estimated that between 1933 and 1943 the birth rate increased 30 per cent, according to an editorial in the May 18 issue of The Journal of the American Medical Association.

Continuing the editorial says:

"This does not mean that the average American family is growing larger. The principal explanation for the increase appears to be the rise in the marriage rate and the increase of one and two child families. This is deducted from the analysis of the increase in the first, second, third and fourth or higher births in the family. Thus, during the war years 1941 to 1943 the birth rate for all women in the reproductive age increased 22 per cent; first births increased 21 per cent, second births 31 per cent, third births 27 per cent and fourth births 19.5 per cent."

INTESTINAL INTOXICATION IN INFANTS

The public press recently gave considerable prominence to an outbreak of diarrhea on an ocean steamer carrying wives and infants of American military personnel from a European port to the United States. At the time of this writing no official reports are available as to the actual number of infants involved, or to the morbidity-mortality ratio which resulted from this unfortunate outbreak. Nor has there been appreciable information of a scientific nature on the etiological factor or factors responsible for these numerous family tragedies. From the releases of the newspapers it is safe to assume that the disease was of infectious origin perhaps similar to, if not identical with, epidemic diarrhea of the newborn.

It is well to emphasize that while summer diarrhea, summer complaint, or cholera infantum of a generation ago have become historical terms of indefinite significance in ultramodern medical circles, infants still suffer from enteric infections, and diarrhea and vomiting with resulting dehydration, loss in electrolyte and rapidly developing acidosis, are responsible for too many deaths each year. The corrollary is clear. The physician who assumes the care of infants and young children must be constantly alert to the menace of diarrhea and vomiting as symptoms of possible gastrointestinal intoxication. Dismissal of this syndrome with a cathartic, and failure to follow up the case until improvement is evident constitutes an indirect invitation to catastrophe in view of possible irreversible chemical changes which may develop within a short period of time. This is particularly true of the premature, immature, or debilited infant.

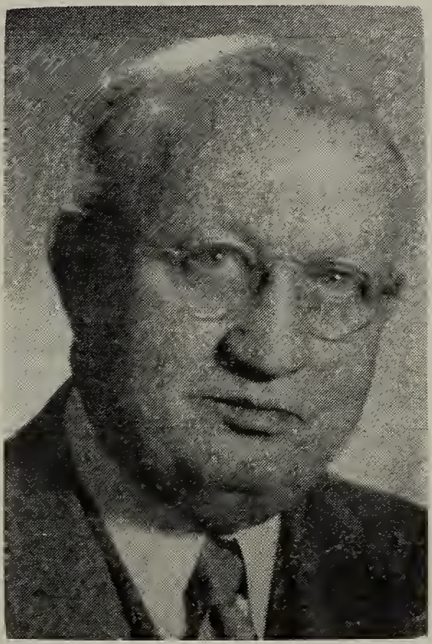
While the treatment must be directed toward the discovery of the underlying cause the immediate problem is the replacement of lost fluid and electrolytes in order to avert a serious imbalance in hydrogen ion concentration.

Whole blood and blood plasma transfusions are time-honored procedures. A recent paper by High, Anderson, and Nelson (Journal of Pediatrics, April 1946, p. 407), points out that the administration of synthetic ascorbic acid and thiamine chloride are of value, and they recommend Vitamin K in the hope of relieving the tendency to bleeding. These authors postulate that hypoprothrombinemia may result from a disturbance in the synthesis of this vitamin by the normal intestinal flora.

BROCHURE READY

The brochure on "Voluntary Prepayment Medical Care Plans" has been completed and will be sent on request. It includes a short description of some forty-seven plans and an outline of the development of the prepayment program with reference to the policies of the American Medical Association. No attempt has been made to analyze the plans —that will come later.

Council on Medical Service and
Public Relations of the American
Medical Association



PRESIDENT EARLE G. JOHNSON
Grand Island

In this issue of The Journal, I would be remiss in my obligation to the Association if I did not thank you for the very great honor you have bestowed on me.

Every member of the Association should know of the complete and thorough work done by our retiring President, Doctor Charles McMartin; by the Planning Committee, headed by Doctor Floyd Rogers; by the Nebraska Service Plan, headed by Doctor A. J. Offerman. In my experience with the Association it has never been my privilege to see better work more sincerely done.

In the coming year I ask for the cooperation of each member. I should like to have each Councilor District and each County Society know that I will hold myself ready to come and participate in their programs and discussions of their problems.

EARLE G. JOHNSON, President.

Epilepsy*

S. N. BERENS, M.D.
Seattle, Washington

Epilepsy is a fairly common disease and it affects persons in all walks of life. As many people suffer from it as from diabetes or active tuberculosis, at least 500,000 in the United States. Now that the war is over, we are probably going to see an even greater number of epileptics than we did before, because the strains of military service, and head injuries may contribute to the onset of previously unsuspected seizures. Of all the people in the United States about 1 in every 200 have seizures. If, however, electroencephalographic studies are made, it has been found that about 1 person in every 10 has some irregularity of the brain wave pattern, which simulates to a greater or less extent the patterns of one or the other of the various types of convulsive seizures. About 70 out of every 1,000 children have one or more attacks during their first five years and about 70% of the patients display their first attacks before they are twenty years of age. The peak age of the development of seizures is usually during the first two years of life, presumably because hereditary and prenatal and birth injureis are most likely to show themselves at that time. Another high point of seizure development is during adolescence.

It is difficult to define epilepsy. It is better to describe it as follows: Epilepsy is a chronic, frequently progressive, pathological state in which there is a recurrent alteration in the metabolism of nerve cells. These nerve cells are a system of electrolytes enclosed in a semipermeable membrane and are affected by excessive abnormal electrical, chemical, and mechanical stimuli. These stimuli affect metabolism to produce paroxysmal electrochemical cerebral discharges which vary from the normal in amplitude and rhythm. A gradual lowering of the threshold of these chronic and recurring stimuli eventually produces a facilitation of the effects of the electrochemical discharge. This results in the varying clinical states known as Jacksonian seizures, petit mal, grand mal, psychomotor attacks, autonomic seizures sometimes associated with progressive mental deterioration. These clinical states or seizures are characterized by a temporary loss or impairment of consciousness, occurring usually without cause and accompanied frequently by muscular movements which range anywhere from slight twitching of the eyelids to violent shaking of the entire body. Many seizures represent various combinations of the above mentioned clinical states and the patient and his relatives may describe many different types of convulsive manifestations. The clinical condition known as migraine headaches is thought to be related to epilepsy.

As to the cause of epilepsy, all one can say is that there does not appear to be a single pathological event which is known to be the only cause of epilepsy. It is not suspected that epilepsy is directly inheritable. Most clinicians, however, agree that a tendency or weakening of general metabolism or a susceptibility of the circulatory system of the brain to damage is found in a certain percentage of patients who are related by blood ties.

Injury to the brain, occurring either prenatally, during birth, or during early infancy is an important event in the history of a person who develops convulsive seizures. The injury may be either violence (trauma), or may be the result of infections or inflammations such as caused by sleeping sickness, measles, meningitis, whooping cough and other acute illnesses. Tumors of the brain are not common causes of epilepsy but they are frequently characterized by convulsive seizures at irregular intervals. Disorders of various other parts of the body may react unfavorably on the brain and lead to the development of convulsive seizures. Among these are the diseases which affect the kidneys and, less frequently, the heart; also disturbances in the glands of internal secretion seem to play an important part. Particularly prominent are diseases affecting the pancreas, pituitary gland and the gonodal system, especialy during the development of sexual maturity. The psychogenic causes of convulsive seizures are not very clearly understood, but it is a common observation that emotional disturbances may, through the autonomic nervous system, produce profound functional metabolic changes which lead to repeated convulsive seizures.

There seems to be no self-sufficient reason for the production of a single convulsive seizure in an otherwise apparently normal person. It is a common observation, however, that strong emotional stimulation, gastrointestinal upsets, and the onset of each menstruation, are periods that are likely to be associated with one or more convulsive seizures. The scientific explanation of the relationship between these events is rather difficult. However, one cannot overlook the remarkable importance of the autonomic nervous system in each one of these predisposing factors for an individual convulsive seizure.

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*Read before the Omaha Mid-West Clinical Society, October, 1945.

The individual convulsive seizures may be classified as follows:

They may be either Jacksonian (localized to a small group of muscles), or petit mal (involving only part of the motor system, but with loss of consciousness as an additional factor, or grand mal (involving all of the motor system with prolonged loss of consciousness; sensory, psychic or motor prodromal aura; and rapid or prolonged recovery from exhaustion, confusion, and somnulence) or psychomotor (automatism or dream state) or autonomic (vasovagal-vomiting).

While it is true that the description of the seizures by the patient or his relatives usually makes the diagnosis fairly clear, nevertheless, there are many types of convulsive seizures which vary from the standard clinical pattern so much as to cast some doubt on the diagnosis. Therefore, the electroencephalograph has become a necessary instrument to be used in the diagnosis of anyone suspected of having any type of epileptic convulsive seizures. The electroencephalogram, taken at any time, will reveal some degree of irregularity in about 85% of the patients who have clinically recognizable convulsions. An additional 15% of persons without seizures have irregular brain waves which may be of a more or less immature similarity to the characteristic brain waves of the definite types of convulsive seizures; that is, grand mal, petit mal, and psychomotor equivalents. We associate various kinds of dysrythmia or irregular brain waves with the different types of epileptic states. Large, slow, one to six a second waves indicate the deteriorated patient who is dull, slow to comprehend and remember, selfish and inconsiderate.

Large, rapid, forty to fifty a second waves indicate the grand mal convulsion with widespread involvement of large areas or cortex and also basal ganglia resulting in the spectacular explosion of motor energy expressed not only through the voluntary motor systems but also through the autonomic system with all its vasomotor changes and reactions.

Alternating slow and fast waves of petit mal attack, characterized by sub-clinical, or actually observable instantaneous momentary losses of consciousness, vasomotor response and involuntary motor atony.

Square waves of psychic equivalent which denote the momentary mental convulsion, characterized clinically by sullenness, suspiciousness, rebelliousness, irritability and violent outbursts of emotion.

A pneumoencephalogram will give additional evidence regarding the size, shape and contour of various portions of the brain. This procedure is of great aid in the identification of surgical, space occupying intracranial lesions, such as various types of brain tumors, hematoms and abscesses. It also helps to identify local areas of edema or atrophy, or generalized edema or atrophy, local or generalized arachnoiditis, cerebral porosis, or structural or pathological changes in the skull.

A four-hour glucose tolerance test may occasionally bring to light a hypoglycemia which has as one of its symptoms petit mal or psychomotor-like episodes of a transient or more prolonged character.

In connection with the electroencephalographic study, there are other procedures which tend to bring out an otherwise latent convulsive tendency. The most common of these is the hyperventilation test. The other is the pitressin hydration test. With the advent of substratosphere aviation it has been observed that anoxic reactions result, beginning as low as 12,000-18,000 feet altitude. Of those showing anoxic reactions some are found to give characteristic epileptic brain wave patterns.

The treatment of epilepsy involves restoration of the patient to prime health by every method available. The correction of all organic and functional faults and defects; institution of regular hours of rest, work and sleep, and meals; elimination of excessive emotional stimulation. The work of Fay on the beneficial effects of dehydration of the epileptic patient is well known. Also, the work of Wilder, at the Mayo Clinic, on the use of a ketogenic diet, especially in children, is known to be a very useful therapeutic aid.

For a number of years it has been the

custom of some clinicians to achieve the effect of a mild acidosis, which seems to decrease the number of attacks, by a combination of the dietary regulations and the dehydration procedures. This can be accomplished by prescribing a low salt, low carbohydrate diet only slightly above normal in fat ratio (1 to 1) and at the same time restricting the patient's intake of fluids. The patient keeps an accurate record of intake and output of fluids for months until he does it automatically. The amount of liquid allowed is regulated by demands of his work and living conditions and is checked by weekly urinalysis for specific gravity and reaction.

The use of bromides began about the time of the Civil War and was regarded as the most successful drug in use until the discovery of Phenobarbital as an anticonvulsant. The effective use of bromides, especially in difficult cases, frequently brought about skin eruptions and depression of mental and physical activities and dullness of the memory. Phenobarbital first became popular about thirty-three years ago and has been found to have a distinct advantage over the bromides, but it too had the disadvantage of producing drowsiness and mental and physical depression.

About ten years ago Tracy Putnam and Houston Merritt of the Harvard Medical School tried many different drugs and combinations of drugs which were known to have anticonvulsant properties, and finally selected a compound known as Phenytoin Sodium, known to the pharmaceutical trade as Dilantin Sodium. The comparative effectiveness of these various medications can be realized when we consider that an untreated patient would have 50% fewer convulsions if he took bromide solutions. He would have 65% fewer convulsions if he took Phenobarbital and he would have 97% fewer convulsions if he took Dilantin Sodium. This clearly indicates that Dilantin Sodium is the most effective of the three types of medication. However, it does have a drawback in that certain patients cannot take it in large doses and will suffer from instability in walking, dizziness or nausea, or skin eruptions, or hyperplasia of the gums.

For many years many clinicians have found that convulsions are more effectively controlled if a combination of Dilantin Sodium and Phenobarbital are used. In a large child or an adult having many petit mal and grand mal attacks it may be necessary to give as much as four capsules of Dilantine Sodium, grs. 1½, a day and Phenobarbital, grs. 1½, one hour before retiring and grains ¾ once, or even twice a day. The usual dose is smaller however. The trouble with this medication is that if it must be taken in large amounts, it is not always well tolerated. If a patient starts to show sensitivity to Dilantin Sodium it may have to be discontinued for a few weeks before being used again. Most patients eventually lose this sensitization.

A more recently used drug, Tridione (3, 5, 5-Trimethyl oxysolidine 2, 4-dione) gives great promise in the treatment of Petit Mal and myoclonic epilepsy. A few weeks administration of this medicine to children has reduced daily seizures in 52% and stopped them in 25% of a selected group. Side effects include improvement in appetite, school performance and deportment. On the other hand, in a few cases the drug was discontinued for a short time because of photophobia.

Further study of this medicine alone, and in combination with older drugs, will be necessary before its true value can be determined.

The surgical removal of epileptogenic foci on the cerebral cortex as advocated particularly by Penfield has been rewarded by startling success in some cases and complete failure in others.

Another therapeutic aid which should not be lost sight of, is physical and mental conditioning. Physical conditioning by exercise to develop a strong and well proportioned body seems to be a very important factor in the success of drug therapy. It is equally important that the patient be kept mentally occupied and emotionally happy and that he be prevented from drawing into himself and giving up his contacts with the world and his friends and his usual activities.

There are very few epileptics who cannot work and be self-supporting and, if epilepsy is the only pathological condition existing in an individual patient, there is no reason in by far the vast majority of cases why he cannot obtain a good education.

G. Caplan, writing in the British Medical Journal, reports that he has fifteen patients receiving usual anticonvulsant drugs whom he has subjected to electroshock therapy. He reasoned that if he could discharge the convulsive energy under controlled conditions the patient would be better protected at other times when he would be most anxious to avoid a convulsion. He reports a decrease in the number of seizures, great help in overcoming psychomotor attacks and amelioration of associated psychosis in more difficult cases of epilepsy.

SUMMARY

The care of the individual epileptic patient demands:

1. Careful diagnosis, especially in difficult cases, neglecting neither the seizures nor the patient.

2. Education of the patient and/or his relatives; advising and counselling, and encouraging with firmness and kindness.

3. Personal supervision of the therapeutic schedule at least on a monthly basis, making necessary changes and revisions as patient's needs require. This supervision must be carried out for years.

* * *

IN THIS ISSUE

IN the last Sessions of the Omaha Mid-West Clinical Society, Dr. Berens of Seattle presented a most interesting paper on epilepsy. Dr. Berens is a graduate of Creighton University School of Medicine, and is now a member of the faculty of Washington State University. The paper is on page.. 264

NEXT we present a symposium on the highly important subject of head injuries. This symposium, too, was a part of the annual Sessions of the Omaha Mid-West Clinical Society last year. Start with the first paper on Diagnosis, then read the discussion on Delayed Complications, follow with Psychiatric Aspects, and finally the follow-up on this condition. The Symposium starts on page 268

AGAIN we present a paper on Malaria—a most important subject nowadays in view of the probable recurrence of the condition in many of the discharged service men who saw duty in malaria infested areas. You will find this discussion on page............ 282

AN interesting clinic recorded by Dr. John R. Schenken of the Methodist Hospital, Omaha, is again presented. You will find it on page 285

Symposium on Head Injuries

Diagnosis and Management for First Forty-eight Hours*

E. A. CONNOLLY, M.D.
Omaha, Nebraska

Since all physicians at some time or another are confronted with patients who have sustained head injuries, it is obligatory that we become familiar with the symptoms, findings, and treatment.

Although there are definite findings denoting in general the type of lesion, still each case differs somewhat, making it necessary to individualize. The minimum injury occurs when the head is struck without causing unconsciousness or brain damage. Here we are concerned with the contused or lacerated wound. There may be profuse hemorrhage, infection may ensue, or a disfiguring scar may be the end result.

ANATOMY

No attempt will be made to describe the bones of the skull or its contents. Mention is made of the galea aponeurotica and pericranium because accumulation of blood beneath these structures is of surgical importance. The skin and subcutaneous tissue is firmly bound to the galea by fibrous septa. Beneath the galea is loose areolar tissue. The pericranium is intimately bound to the skull, particularly along the suture lines. The scalp has a rich blood supply and heals readily unless infection occurs. Hematomas of the scalp absorb, and do not require removal unless they become very extensive, causing the scalp to be under such tension as to interfere with nutrition. Inasmuch as there is no limiting membrane between the galea and pericranium to prevent spread, it can occur, and on occasions incision should be done to prevent necrosis. Injury to the pericranium may be followed by osteomyelitis of the skull. Simple laceration of the scalp is treated by shaving the wound edges, thorough cleansing with white soap and water, excision of devitalized tissue and loose suturing. If subsequently there is evidence of infection as pain, redness, edema, and fever, the sutures should promptly be removed.

In discussing head injuries, however, we are concerned about trauma to the brain. It has been emphasized repeatedly that too much attention is given to the extent and location of a skull fracture and that too little thought is given to that which is vitally important—the extent of cerebral damage.

Those cases which have sustained brain injury manifested by loss of consciousness, whether momentarily or prolonged, require prolonged bed rest, careful nursing, and constant observation. Although shock usually is not a serious problem in head injuries, when it does occur it is of primary importance and takes precedence in demanding treatment. If present, it is usually due to bleeding or trauma in other parts of the body. Shock has been defined as the clinical condition characterized by progressive reduction in circulating blood volume due to increased capillary permeability. Peripheral circulatory failure is the characteristic physiologic feature of shock. The skin is cold, moist, and of an ashen gray or cyanotic hue. Pulse is feeble and rapid and the blood pressure is lowered, both the systolic and diastolic pressure declines, the diastolic less than the systolic, causing a reduction in pulse pressure. The veins are collapsed and sweating is a frequent accompaniment of reduced circulation. Hemoconcentration is a good index of increased capillary permeability if there has not been simultaneous loss of whole blood. Shock is treated by external heat, caffeine sodium benzoate, and blood or plasma intravenously. External hemorrhage is controlled by suture or temporarily by pressure bandage. The head should not be lowered as this position increases intracranial congestion and hemorrhage and raises the pressure through simple dynamics. It is better to keep the patient level or slightly elevated as this improves the cerebral circulation by reducing venous congestion. Progress in the treatment of shock is determined by frequent blood pressure readings. A systolic pressure of more than 100 indicates that shock is not severe. In head injuries shock will probably not be a factor after twelve hours.

If, in association with a severe head injury, a lacerated scalp is present, it is necessary that every attempt to prevent infection be made. The fundamental principal in preventing infection is the attainment of a clean wound and primary closure. Ideally, compound head injuries should receive complete definite treatment at the earliest moment. The skin around the wound edges is shaved, the wound thoroughly cleansed with white soap and flushed with large quantities of sterile water, debridement of devitalized tissue removal of damaged bone, and irrigation of the tract in the brain. Dirt, hair, clots, bone fragments, and tissue debris are removed by flotation and suction. It is more important to remove depressed bone fragments than small metal objects. If a depressed bone fragment is retained, a brain abscess occurs in about 50% of the cases. Thorough, painstaking, and radical debridement of damaged brain tissue is essential. If facilities and personnel are not available for definitive treatment in compound skull fractures, the wound should be thoroughly irrigated and a sterile dressing applied. Patients with head injuries, unless in a state of shock, tolerate transportation well and can be safely transferred to a hospital for competent surgical treatment.

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In considering brain injury there are certain physiological facts. The brain surrounded with fluid is encased in a rigid, unyielding skull. Since the brain and fluid completely fill the cavity, any bleeding or swelling of the brain will produce pressure on the delicate brain substance, the results of which are headache, drowsiness, unconsciousness, and finally death due to medullary compression.

Subarachnoid Hemorrhage: This is a frequent occurrence in head injuries and is characterized by fever, irritability, and persistent headaches.

Cerebral Edema: This is a consistent effect of head trauma and may be associated with numerous punctate hemorrhages or with direct injury to brain tissue and intracranial clots of any size. If severe symptoms are present, they are probably due to a combination of edema plus intracranial hemorrhage.

Epidural Hemorrhage: A linear fracture crossing a meningeal groove in the temporal bone can tear the artery, producing an epidural hemorrhage. The initial injury causes temporary unconsciousness. Consciousness is restored but after a latent period, the patient becomes comatose. The free interval may be minutes, hours, or days. During the conscious period, there is headache and tenderness on the side of the lesion due to separation of the dura from the skull. This slow, massive hemorrhage causes contralateral weakness. However, neurological signs may be generalized, contralateral, or ipsolateral. This is different from the surden hemiplegia due to cortical contusion or laceration which is flaccid and complete. Jacksonian convulsions are frequent, beginning in the face or arm. There is bradycardia, increasing blood pressure, and unequal pupils, the larger pupil being on the side of the lesion. Early recognition and treatment is necessary. A negative exploration is better than one too late. Bilateral exploration is called for if pathology is not found on first opening. The site of exploratory trephination is just above the middle of the zygoma. The main trunk of the middle meningeal artery may be torn close to the foramen spinosum so be prepared to plug with wax.

Location of a basal fracture is suggested by the following signs:

Anterior Fossa: Subconjunctival hemorrhage, epistaxis, or anosmia due to the injury to the olfactory bulb.

Middle Fossa: Bleeding from ear, cerebrospinal otorrhea, peripheral facial paralysis, deafness, and tinnitus.

Posterior Fossa: Ecchymosis base of neck and behind mastoid—(Battles' Sign).

Rigidity of the neck is due to meningeal irritation and is suggestive of hemorrhage.

Roentgenographic examination is absolutely indicated in all patients with a history of unconsciousness but should not be done if the patient is in shock or is unable to cooperate for stereoscopic exposures. Indeed, actual harm may be done to an extremely restless patient in an attempt to obtain x-ray films. In addition to being a permanent medico-legal record of the presence or absence of a skull fracture, they are of great importance when considering the possibility of an epidural hemorrhage as this condition rarely occurs without a fracture over the trunk of the meningeal artery or one of its branches. These fractures, as a rule, are easily demonstrated. They are also of extreme value in determining the presence and extent of depressed skull fractures. Roentgenologic examination of the cervical spine should be routine in cases of combined head and shoulder injuries.

Complete physical and neurological examination is indicated, and one must not forget the possibility of associated injuries. The degree of consciousness is noted and followed carefully as this is the best index as to prognosis. Hypnotics should not be used except to control extreme restlessness, because their use prevents observance of the state of consciousness so necessary in determining the possibility of intracranial hemorrhage. As long as the patient's state of consciousness is only slightly disturbed and he can be easily aroused by stimulation, he is standing well the effects of his brain injury. Immediately after severe head injuries all the reflexes are lost. Their return is a favorable sign. If pupils are unequal, it may be the only means of locating the site of the hemorrhage. Fixed, dilated pupils usually indicate a fatality. Weakness of the face is recorded whether central or peripheral. Bleeding from nose, mouth, or ear is recorded. Convulsions should be studied to determine whether they are focal or generalized.

TREATMENT

Constant and careful nursing is necessary. Pulse, respiration, blood pressure, and temperature should be charted hourly as they are harbingers of the results of treatment. Temperature of 102° or less indicates moderate severe injury. Temperature of more than 103° is an indication of a severe lesion, usually with widespread damage to brain tissue. Fluctuating temperatures are found in injuries to the brain stem. In the terminal stage the temperature progressively increases. Pulse of 50 to 60 is not uncommon with increased pressure and is evidence of compensation, but later if the pulse is increasing with a corresponding fall in blood pressure, this indicates the medullary structures have been seriously impaired.

Ice bags to the head and absolute bed rest is ordered. Restlessness in head injuries is an indication of elevated pressure. It is controlled by sedatives, as; Phenobarbital, 1½ to 3 grains; Bromides, 15 to 30 grains by mouth or rectum; Chloral hydrate, 20 to 30 grains by mouth or rectum; or when restlessness is severe with Paraldehyde, 3 to 6 drachms by rectum. Paraldehyde is a very effective sedative. If conscious, codeine may be given for headache. Morphine is contra-indicated as it interferes with pupillary signs, tends to mask coma and other neurological signs, and is in syngery with the increased intracranial pressure in decreasing the respiratory rate, occasionally even to the point of causing death.

Henry K. Beecher, consultant in Anesthesia and Resuscitation in the Mediterranean Theatre of Operations, says, "The evidence is mounting that morphine has a single legitimate use: the relief of severe pain. It is not only of no value in shock or restlessness but absolutely dangerous."

Guttman, S. A. (J.A.M.A., 124-155, Jan. 15, 1944), investigated the use of Demerol in patients with intracranial lesions in whom morphine sulfate is usually contra-indicated because of its depressing effect on respiration and the alteration in pupillary response. Four patients were suffering from craniocerebral injuries and sixteen had hematoma or some type of tumor. Definite respiratory embarrassment followed injection of 100 mg. of Demerol in 7 patients, the respiratory rate falling to 12, in two cases it fell to 8 and 4 for a short time. In seven cases the pupils contracted and instances of corneal hypalgesia and analgesa were observed.

Batterman, R. C. (Arch. Int. Medicine, 71:345, March, 1943), however, states that the absence of disturbance of pupillary reflexes after the use of Demerol makes the drug particularly useful for head injuries and other intracranial conditions.

Bleeding from the ear is evidence of laceration of the dura by fracture of the base of the skull and is left alone, irrigation being harmful. Every patient with a discharge of spinal fluid from the nose or ears is a potential case of meningitis. Therefore, penicillin is indicated, at least 20,000 units intramuscularly every three hours, and if conscious, in conjunction with sulfa by mouth.

Fundamentally other than actual brain destruction, which can not be corrected, the real pathology is cerebral oedema, causing increased intracranial pressure. Inasmuch as the skull is rigid, any and all means at our disposal are used to reduce pressure to protect the compressible brain tissue.

To reduce pressure two methods are available, namely, (1) Drainage, and (2) Dehydration.

(1) Spinal Puncture: There is sharp dispute concerning the advisability of spinal puncture. Some condemn it and others rou-

tinely employ frequent spinal drainage. Personally, I believe that it is very valuable both in diagnosis and treatment. As a diagnotic procedure it is used to determine whether the fluid is bloody and to obtain an estimate of the intracranial tension. It is of no value in determining the pressure unless measured with a manometer. It is used as soon as the symptoms of shock have disappeared. With the patient on his side the normal spinal pressure is 5 to 12 mm. of mercury or 100 to 150 of water. If the patient is not easily controlled, there is danger of breaking the spinal needle. When the pressure is elevated. sufficient fluid is withdrawn to reduce the pressure to half its original level. This may be repeated as often as every six hours. The Queckenstedt test should never be used in diagnosis or treatment of head injuries.

Subtemporal decompression is only mentioned to be condemned. The mortality in cerebro-cranial injuries has been materially reduced since the abandonment of this procedure.

(2) Dehydration: This is accomplished by restricting fluids, plus the use of intravenous hypertonic solutions, 50 or 100 cc. of 50% sucrose which may be repeated in six hours. With intravenous glucose after a primary reduction in pressure, there is a secondary rise. This does not follow the use of hypertonic sucrose solution. For dehydration alone sucrose is preferable but renal damage may be caused in elderly patients from over use.

If the patient is able to swallow, magnesium sulfate solution is given orally, one drachm of a saturated solution is given every hour for eight doses or one ounce each morning. If unconscious, retention enema of 6 ounces of 50% magnesium sulfate solution is helpful. This must be retained by manual pressure on the buttocks for 30 minutes.

Kennedy & Wortis have recommended the administration of caffeine sodiobenzoate, 0.5 gms. every 4 hours, for reduction of intracranial pressure.

1,000 to 1,500 cc. of fluid in 24 hours should be given to all patients either by mouth or if unconscious, by slow intravenous administration. Fluids by mouth must not be given to unconscious or stuporous patients. In the first forty-eight hours there is only need for fluids and 100 gms. of glucose. Later on consideration of other food elements and vitamins is required.

Unconscious Patients: The head of the bed is elevated unless the patient is in shock. If obstruction of airways is developing because of accumulation of pulmonary secretions, the foot of the bed should be elevated 10 to 15 inches to promote bronchial drainage. Some assistance in removing bronchial secretions can be obtained with suction apparatus. The patient should never lie on his back but on the side with the upper leg flexed, body rotated forward, and face down, and the jaw and tongue dependant. They should be turned from side to side every four hours day and night.

Anesthesia: For suturing wounds and debridement, either local novocaine, intravenous sodium pentothal, or endotracheal ether are available. Local is best but often unsatisfactory because of the inability of the patient to cooperate. Sodium Pentothal is easily administered but is more lethal than ether. Anesthesia, when necessary, should be given with extreme care, in minimal quantities, and only administered by one thoroughly familiar with their use. Their depressant action in one already dangerously depressed, may be fatal.

A word of caution will not be amiss in this discussion concerning head injuries and alcohol. Unconscious patients, even though smelling strongly of intoxicants, should not be brushed off as drunk. They should be carefully observed because they may be suffering from intracranial pressure due to trauma rather than the effects of liquor.

A SMILE

Here's a smile, if you can use it.
Take it. Keep it. Don't refuse it.
And when you have used it, then
Pass the smile right on again;
Someone else may use it too.
Smiles, if they've been worn, it's true,
Still are just as good as new!
If you've not learned this, you will:
If the smile's a hand-me-down,
Even second-hand, it's still
Better than a brand-new frown!

Author unknown

Delayed Surgical Complications of Head Injuries*

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The delayed surgical complications of head injuries, although not large in number, are nevertheless disturbing and require sound knowledge in diagnosis and management. The most frequent aftermath of head injury is the variously named syndrome commonly designated as post-traumatic headache, with dizziness on change of position. This symptom-complex, with uncertain organic basis, and rarely surgical, is to be discussed by Dr. A. E. Bennett, and will not be considered here further. The present discussion will be limited to four neurosurgical conditions arising as a later sequel of head injury; chronic subdural hematoma, brain abscess, traumatic epilepsy and cranial defects.

Subdural hemorrhage contrasts with epidural hemorrhage in that it characteristically is caused by a mild head injury without skull fracture, is venous in origin and is slow in producing symptoms. The typical injury is a simple frontal or occipital bump on the head which does not cause unconsciousness and may be forgotten by the time the symptoms of chronic subdural hematoma appear. The mechanism is a forward or backward displacement of the cerebral hemispheres within the subdural space. This tears off cerebral veins which cross the subdural space to enter the superior longitutinal sinus and frequently occurs bilaterally. (Fig. 1). The blood under low venous pressure enters the subdural space somewhat intermittently, as venous pressure is raised by vomiting or straining. If the head injury is severe enough to cause unconsciousness and brain swelling, the subdural space is compressed and significant venous bleeding into this space is not likely to occur. The child's growing brain so completely fills the cranium that many frontal bumps of early childhood rarely lead to subdural hematoma, although this complication may occur. In opposite manner, a somewhat atrophic brain in elderly individuals predisposes to subdural hematoma and the condition is encountered with greater frequency in mental institutions, either as an incidental finding or as a causative factor of mental symptoms.

Blood within the subdural space is separated from the brain by the thin but impervious arachnoid membrane, hence it does not produce cortical irritation nor appear in the spinal fluid in significant amount. It can spread widely as a thin layer over the surface of the cerebral hemisphere and, because of this and its slow accumulation, does not produce pressure symptoms until an average of 4 to 6 weeks after the initiating injury. There is not continued bleeding during this length of time but the old blood becomes encysted by a vascularized membrane and there is thought to be transudation of serum into this hypertonic material. Another factor in the character of the contents is admixture with cerebrospinal fluid from a tear in the arachnoid around the veins. Some subdural hematomas are found as firm organizing clots with little fluid content, while others are quite serous. Occasionally a subdural cyst containing almost no blood is found, mostly cerebrospinal fluid which cannot pass back through the impervious arachnoid to be absorbed.

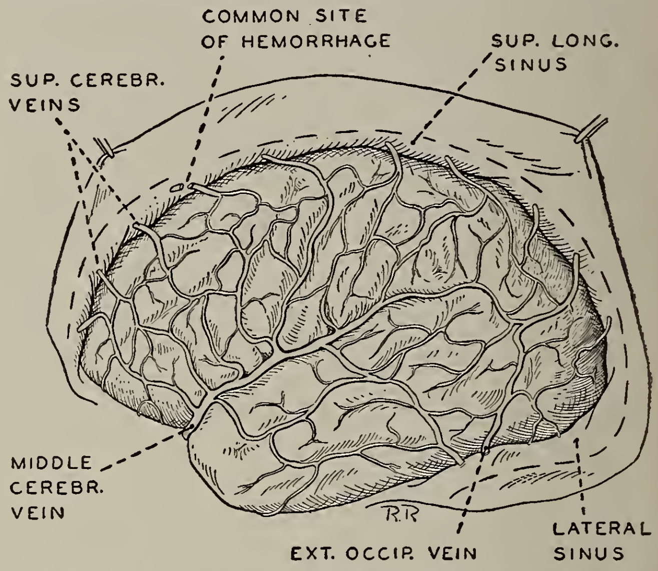

Figure 1. A cerebral hemisphere with dura reflected to show cerebral veins crossing subdural space to enter the superior longitudinal sinus and the lateral sinus. (After Porior Anatomy).

The diagnostic symptoms of chronic subdural hematoma are few. They consist mainly of persisting and increasing headache some weeks or months after a mild frontal or occipital head injury. The frequent bilaterality of the lesion adds to the difficulty of localization. Finally compression of the cerebral hemispheres becomes so great that mental faculties are disturbed, with irritability, forgetfulness or dullness. If the hematoma is uilateral, some opposite focal signs may appear as weakness and numbness of the opposite arm. The pressure symptoms usually progress slowly enough to give warning of serious trouble and brain tumor may be suspected. However, acute symptoms can develop which, if ignored or too much sedation given, may lead to coma and death unattended during the night.

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*Delivered as part of a symposium on Head Injuries at the Annual Sessions of the Omaha Mid-West Clinical Society, October, 1945.

This is illustrated by the case of man who was dazed in a fist fight but was able to drive his car home and attend to work the next two weeks. Then he began to have headaches which increased, and after a week caused him to consult his physician. Aspirin was prescribed but did not relieve. He returned the next day and stronger sedation was given. The third day, with headache so bad he was desperate, morphine was given. This gave him relief, but he was found dead in bed the next morning. Post mortem examination showed the operable subdural hematoma.

Unexplained increasing headache some weeks after a mild head injury should suggest chronic subdural hematoma and lead to careful neurologic examination, including ophthalmoscopic examination and spinal puncture. The spinal fluid usually is under moderately increased pressure and contains increased protein and a few red blood cells. If the diagnosis favors brain tumor an electroencephalogram or pneumoencephalogram is indicated for better localization.

The treatment of chronic subdural hematoma may be very simple or at times quite complicated. The entirely liquid hematoma, thought to be from an admixture of blood and cerebrospinal fluid, with surrounding thin membrane, can be evacuated through the exploring trephine, the cavity washed with normal saline and drained for 24 to 48 hours to allow for somewhat slow restoration of brain volume and obliteration of the subdural space.

A recent example of this type of case is that of a 6-year-old boy who ran into another boy and bumped his forehead. He complained of some headache for a few days, then seemed well. Three weeks later increasing headaches with vomiting occurred until he became unconscious and was then sent to a distant hospital. Fortunately dehydration reduced his serious intracranial pressure and restored consciousness on the way in the next day. An exploratory trephine released about 3 ounces of very dark liquid old blood from the left subdural space. The surrounding membrane was thin and within 24 hours the brain volume had been restored to obliterate the cavity through a small drain left in place. The child was well within a few days.

The clotted and partly organized subdural hematoma requires a bone flap and careful dissection of the extensive membrane from the dura and arachnoid.

An illustrative case is an elderly woman who bumped the back of her head as she fell on the pavement. She was dazed and had some following headache but continued regular work for one month. During the fourth week, however, her headache became increasingly severe, she was irritable and forgetful and at times there was difficulty in use of her left hand. A telephone diagnosis of chronic subdural hematoma was made, confirmed by spinal fluid findings and trephine exploration. A fair amount of brownish yellow fluid was evacuated and a drain left in place 48 hours with some improvement. However, symptoms recurred within a week and a small bone flap opening permitted removal of a large edematous organized clot. An exploratory trephine was not done on the opposite side. Three weeks later the other arm began to show paralysis and a similar bone flap on the opposite side removed a large organized clot there. Recovery then was satisfactory.

Recurrent bleeding may occur in these cases after operation, or a reactionary brain edema or subcortical necrosis develop to cause a very troublesome time, paralysis or death.

A case example is a 68-year-old man, in an auto accident June 7, 1941. He was unconscious 30 minutes, stayed at a hospital an hour, then was taken home and recovered without trouble. Two months later headache developed, followed by mental dullness, incontinence and left arm weakness. An exploratory right parietal trephine September 15th, evacuated a large brownish red liquid subdural hematoma. A soft rubber drain was left in place and he seemed improved. However, the next day he developed focal epileptiform attacks in his left arm and face, controlled by phenobarbital but with residual left hemiplegia. Recurrent bleeding was suspected and a bone flap exploration done. The subdural space contained no significant blood but the underlying cortex felt soft and extensive hemorrhagic subcortical necrosis was found, caused by the sudden evacuation of the subdural hematoma. The man recovered but with a permanent left hemiparesis.

In recent years there has been greater recognition of acute subdural hemorrhage as the cause of death after head injuries. This has been brought to attention by Donald Munro(1) of the Boston City Hospital where the medical examiner, Timothy Leary(2) has been interested in this subject. He found that 12% of all craniocerebral injuries are complicated by significant subdural hemorrhage which is the cause either of an early fatal outcome or of disability and mental deterioration afterwards. An even higher incidence than this has been reported by Vance(3) of New York who recognized subdural hemorrhage as the cause of death in 132 out of

512 head injury autopsies, or 25%. These figures are startling and indicate that both acute and chronic subdural hemorrhage commonly are overlooked and might be relieved by timely surgery.

The symptoms of acute subdural hemorrhage are not very definite, which is the reason most of those who survive are found in the chronic stage. The wide spread of the blood in the subdural space does not produce focal symptoms as in epidural hemmorhage. Unsatisfactory progress of the patient is liable to be attributed to traumatic brain edema or encephalitis or as a feeding problem in children. The only way this pathology will be found early is by more frequent exploratory trephine or encephalogram. A simple trephine and opening of the dura under local anesthesia carries no significant risk and should be done more often when suspicious focal or general signs appear after head injury.

An example of acute subdural hematoma is a 3-day-old breech delivery baby with probable overlapping of cranial bones by the acute head compression during delivery. The baby appeared normal until the third day when it became listless, nursed poorly and the fontanelle became tense. On the next day stupor with some right face and arm paralysis was noted, also left lid ptosis and widely dilated pupil. A diagnosis of acute subdural hematoma was made, 20 cc. of dark liquid blood aspirated by large needle through the left coronal suture, with immediate improvement, 13 cc. more blood was aspirated the following day, after which the baby made a complete recovery.

Undoubtedly some subdural hematomas in the newborn without focal symptoms are not recognized.

Distressing infectious complications are occasionally seen as the result of inadequate surgical care during the first forty-eight hours after a compound injury of the skull and brain. Failure of the surgeon who first saw the case to appreciate that there was a depressed fracture of the skull, which was contaminated with hair, dirt or other debris, results in an inadequate exploration and debridement of the wound at the time of its initial care. Incomplete cleansing of the injured region results in bacterial infection, and a number of complications develop days or weeks after the injury. Osteomyelitis of the skull, epidural abscess, subdural abscess or brain abscess may follow. Meningitis can of course complicate any of these and the surgical care becomes much more complex. In the presence of this type of infectious process it is necessary to do a secondary debridement of the wound with fairly extensive resection of skull to normal, uninfected bone.

Drainage of a complicating abscess, particularly if intracerebral, is best delayed until localization of the infectious process has ensued and a capsule has developed around the abscess. Otherwise spread of the infectious material from surgical exploration may take place. Penicillin and the sulfonamides have a definite role in pre-operative as well as post-operative care, but it has been demonstrated that these drugs are best left out of cranio-cerebral wounds since they tend to increase scarring and the likelihood of epileptiform attacks following their use. Brain abscesses have been handled in many different ways, from a simple drainage by a trocar needle inserted through a trephine opening into the abscess cavity, or by means of a firm rubber tube similarly introduced, through a gamut of procedures including exteriorization of the abscess or complete excision of the abscess with its capsule in the same manner that an encapsulated brain tumor would be removed. Infection can of course arise in the most adequately debrided wound, and since infectious processes involving the brain and meninges are of such potential danger to the patient. the greatest emphasis should be placed on a thorough initial debridement of a compound head injury.

Post-traumatic epilepsy is one of the most disturbing later complications arising from head injury. Always the result of some form of focal cerebral damage, the convulsions may appear at any time after the injury, from minutes to years, and they may take the form of any variety of epileptiform attack. However, close observation of an attack and a careful history will usually indicate the focal nature of the seizure, in a characteristic awareness of the onset, with extension from one extremity to the entire side or body in gradual development. Electroencephalography gives positive evidence of the initiating focus in a high per cent of cases, 85% according to some authorities, but is of localizing value in a considerably smaller number of cases. The treatment of post-traumatic epilepsy is primarily medical, and involves the administration of phenobarbital, dilantin or mebarol, together with systemic measures. Not all cases will respond to medical treatment, however, and where failure of improvement follows an adequate trial of anti-convulsant drugs, surgical intervention may be indicated.

Careful selection of cases for surgical

treatment is essential if failure is not to follow in a large number. Localization of the craniocerebral cicatrix is the first step. This may be easy, as in those cases where there has been a direct blow to the head with compound depressed fracture and laceration of the underlying brain. It may be more difficult in those cases of contracoup type of injury in which the brain damage consisted of contusion or laceration at a distance from the site of violence. A thorough knowledge of the physiologic function of each area of the brain is necessary to evaluate the component features of the "march" of symptoms in a given case under study, and a localization based on this knowledge often is adequate. However, the electroencephalograph and cerebral pneumography either by encephalogram or by ventriculogram may give the final information needed to directly explore the scarred region. Once the locus is found, surgical excision of the meningocerebral scar is carried out, advisably to the next adjacent convolutional fold in all directions. The scar resulting from such an excision is in itself potentially epileptogenic, but considerably less so than one resulting from an extensive area of hemorrhage and maceration of cortex resulting from an injury. The surgical excision must be a clean one, with absolute hemostasis to prevent the formation of a clot and its resultant organized scar. Post-operatively, medical measures must be continued—the administration of phenobarbital and dilantin must not be stopped, since complete cessation of seizures following surgical intervention cannot be expected. However the incidence of seizures and their severity may be lessened by such a surgical procedure, and a case which would not respond to medical treatment before surgery may be brought within the control of the anti-convulsant drugs by the excision of the meningo-cerebral scar.

Residual cranial defects from advisable removal of loose fragments of bone in compound skull fractures are an unavoidable end result of some head injuries. They are disturbing to the patient for cosmetic reasons, because of a feeling of insecurity arising from the knowledge that between the brain and the outside world there lies only the relatively thin scalp, and because of pulsation, retraction and symptoms related to changes in atmospheric pressure or hydrodynamics resulting from postural changes. Early efforts to substitute a firm or hard substance for the missing portion of skull have included silver plates, which become oxidized, bone or cartilage grafts from the patient himself, cadaver bone, plastic and vitallium plates. During the war just ended two new substances have been used fairly successfully. These are the metallic element tantalum, a rare earth metal which does not react with any element in the series, nor with tissues, and a new dental plastic, acryllic resin. These two are the most satisfactory means at hand for performing cranioplasty at the present time. The metallic one is available in sheets which are malleable, and can be cut or shaped at the operating table to produce the shape and curvature of the missing bone. Since it is a relatively thin sheet, although adequately rigid, it is not necessary to channel or groove the skull bordering the defect to receive the plate. Neither is it necessary to use screws to hold it in place, since triangular wedges of the metal in the form of glazier's points can be cut, driven into the skull with appropriate instruments and bent down over the plate. Tantalum plates can be preformed by a die-casting process which makes it possible to use it for the purpose of rebuilding a missing supra-orbital ridge or root of the nose. Plates of acryllic resin, on the other hand, must be cast in a dental stone model of the defect, and are most adequately formed by a two stage operative procedure, in the first stage of which a mold of the cranial defect is made in dental wax. The wound is then closed, and the model sent to the dental laboratory to have an identical plate of acryllic resin cast and cured. The processing of the acryllic resin takes approximately four to six hours, so that the second stage can be carried out before the first operative wound has healed. The remaining disadvantages of either of these types of plate is the presence of an inert substance beneath the scalp which is subject to temperature change. In extremely cold weather or in the direct rays of the sun, the plate, particularly if it is of tantalum, becomes much colder or hotter than the surrounding tissues and can produce a burn of the tissues directly adjacent to it. At worst, thus far, the reaction has been temporary, including the accumulation of a small amount of fluctuant, sterile fluid around the plate which absorbs in a period of a week or two.

REFERENCES

1. Munro, Donald: The Diagnosis and Treatment of Subdural Hematomata. New England J. Med., 210:1,145, 1934.

2. Leary, Timothy: Subdural Hemorrhages. J. Am. Med. Assoc., 107:897, 1934.

3. Vance, B. M.: Fractures of the Skull. Arch. Surg., 14:1,023, 1927.

Psychiatric Aspects of Head Injury*

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The psychiatric problems following head trauma may be classified as follows:

1. Organic psychotic reactions.
2. Post-concussion syndromes.
3. Functional emotional disorders.
   a. Traumatic neuroses and psychoses.
   b. Malingering.

ORGANIC PSYCHOTIC REACTIONS

Although transient mental reactions such as deliria occur commonly immediately following recovery of consciousness, serious permanent psychoses are uncommon. Only 0.6 per cent of annual admissions of patients to mental hospitals are for head trauma. Less severe disturbances of mental faculties such as memory impairment and changes in personality, not sufficient to require institutional treatment, are much more frequent and can be expected in a fairly high percentage of older patients. The lay public tend to overemphasize head injuries as a cause of mental disorders and epilepsy.

The criteria for establishing a diagnosis of post-traumatic organic dementia are: a definitely severe head trauma without other preceding factors such as infection; a psychosis developing shortly after the head injury; true signs of intellectual disturbance; and confirmatory electroencephalographic and pneumoencephalographic findings of cortical damage. Such conditions as dementia precox, paranoidal states or general paralysis following head trauma, are not true traumatic psychoses. Psychogenic symptoms also frequently will be superimposed upon a true organic syndrome, but the mere presence of psychogenic symptoms does not disprove the organic basis. An element of malingering or simulation may also accompany true organic states.

Alcoholism plays an important part in the production of traumatic psychoses. The acute or chronic alcoholic is particularly likely to suffer cerebral injury.

PATHOGENESIS

Skull fracture is not always present. The major lesion may be on the surface of the brain, as in subdural or epidural hemorrhage. Probably the most important lesion (aside from the general effects) is cortical atrophy secondary to multiple punctate hemorrhages —a true traumatic encephalitis. The most extensive pathology occurs in the frontal areas.

SYMPTOMATOLOGY

The mental symptoms are the same as those found in any organic dementia caused by toxic states infectious or degenerative diseases.

Acute Types: Simple concussion syndrome is characterized by light forms of confusion, slight disorientation, emotional changes and lack of insight, usually with speedy recovery. The more severe types may persist for weeks or months. The first stage is coma and then delirium, followed by amnesic or Korsakoff stage. The latter is characterized by disorientation of time and place, markedly impaired recent memory, confabulation, retrograde amnesia and poor perception despite the presence of clear consciousness and good remote memory. There may or may not be focal neurologic cranial nerve or tract signs present. The emotional reactions are often euphoric. A facetious mood changes quickly to sullen, irritable, suspicious reactions. The patient lacks insight and denies ever having been injured.

PROGNOSIS

Prognoses are not easy to make. The shorter the period of initial unconsciousness, the better the prognosis. Complicating organic factors as alcoholism or arteriosclerosis make the outlook more grave. Children recover better than adults. Traumatic epilepsy develops within two years in perhaps 10 per cent of cases.

POST-CONCUSSION SYNDROME, PERSONALITY DISORDERS

The post-concussion syndrome is one of the most perplexing problems of medicine. There are no well defined criteria to evaluate the role of head injury in the causation of the patient's symptoms. Headache, dizziness, asthenia, inability to concentrate, sleep disturbance, etc., are commonly present after head injuries and are called post-concussion symptoms. When they persist for months they are labelled post-concussion syndrome. Whether they are of psychogenic or physiogenic origin is the subject of much controversy. Assessment of previous psychoneurotic constitution and compensation factors may aid in proper evalution. The presence of any organic neurologic signs, as electroencephalographic or x-ray evidence of cortical damage, confirms an organic diagnosis.

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*Given as a part of a symposium, Omaha Midwest Clinical Society, October 25, 1945.

FUNCTIONAL EMOTIONAL DISORDERS

a. Traumatic Neuroses and Psychoses: These psychogenic reactions following head trauma are usually seen after a minor head injury, with little or no less of consciousness and no x-ray evidence of trauma. The emotional reaction set off by the accident, usually a fear state, starts the symptoms. The reaction that follows is either an hysterical or anxiety neurosis, often with progressive severe depressive symptoms. At times a paranoidal state of psychotic type developes. The term traumatic neurosis is objectionable just as is shell shock, because it implies an organic injury. We use the term to mean that the traumatic factor is causative, without any previous evidence of predisposition for neuross to start the emotional illness.

PSYCHOPATHOLOGY

The incidents occurring at the time of the accident are important etiologically. A narrow escape from death or the patient's notion that he narrowly escaped may set off an acute panic of fear. Events soon after the accident may suggest serious injury or hysterical symptoms to the patient. Transportation to the hospital by ambulance, examinations by the doctor and calls by a lawyer all have suggestive effects upon the sensitive patient. If the patient suffering from functional emotional symptoms is treated as an organic case then he may develop fixed ideas of invalidism and honestly believe he is disabled. Or the patient then may see an opportunity for much needed financial reward. This factor influences his behavior consciously as malingering or unconsciously as an hysterical reaction, with greatly exaggerated symptoms as a result. Repeated examinations and prolonged litigation, with overemphasis upon the part of lawyers, contribute suggestive factors and encourage persistent neurotic invalid reactions.

SYMPTOMATOLOGY

A multitude of subjective complaints without objective evidence is the rule. Functional neurologic signs such as anesthesias, palsies, bizarre postures and gaits, etc., may be present as conversion hysterical findings.

Irritability, anxiety with accompanying physical reactions such as cardiac, vasomotor or gastrointestinal dysfunction, fearful attitude toward recovery and dislike of recalling the accident all characterize the anxiety state. Other patients may show deeper depression, with loss of interest in life, insomnia, fearful dreams and even suicidal desires that may be more truly a reactive depressive psychosis than a neurosis. Extreme concern about self and definite hypochondriacal ideas are common to both anxiety and depressed states.

PROGNOSIS

It is my opinion that the prognosis generally would be much better if these cases were recognized immediately as neuroses and given early appropriate psychotherapy. Unfortunately, in the majority of cases a true diagnosis is not made before extensive examinations, including x-rays, and litigation have started. The golden opportunity for therapy has been missed, just as cases of war neurosis grow steadily worse the farther they are evacuated from battle to the rear, and the later treatment is begun. The emotional reactions become fixed and treatment is usually ineffectual unless monetary remuneration to the patient's satisfaction is made. But if appropriate psychiatric treatment is begun early, recovery should be the rule. Previous psychoneurotic tendencies and complicating organic diseases make the prognosis less favorable.

b. Malingering or Simulation: The motives for malingering are strong when large sums are paid by insurance companies to settle personal injury claims. Unquestionably a large number of frauds are systematically perpetrated by certain individuals. We frequently learn of individuals who have received several settlements for minor or completely questionable injuries. Such cases cause claim agents to distrust all psychic states and to consider them cases of malingering. At times it is hard to differentiate a true neurosis from malingering. Very often the condition is mixed. Feigning organic neurologic conditions is practically impossible since functional disturbances in sensation and paralyses are easily detected. When a patient complains of pain, vertigo, changes in personality or other subjective ills without objective evidence, it is not easy to decide whether the patient is truthful or not.

In differentiating such cases electroencephalography will become increasingly more useful. Strong evidence of desire for financial reward rather than desire for recovery makes one suspect an element of malingering. The malingerer shows a decidedly antagonistic reaction toward the examination, often accuses the physician of working solely for the insurance company, dislikes to give facts of history, etc. The neurotic, however, is more eager to cooperate and impress the examiner with the seriousness of his illness. Sometimes the proof for malingering can be obtained only from external data concerning the behavior of the patient when not observed by a physician. Taking motion pictures or observing the patient's activities by lay witnesses when he is living normally are often the only way to prove malingering.

ELECTROENCEPHALOGRAPHY

Alterations of the electrical activity of the cerebral cortex are fairly constant and occur in a high percentage of true organic postconcussions and in more severe types of head injuries. In the acute stages random delta waves occur and disorganization of the alpha rhythm and epileptiform discharges also occur. With recovery from the injury these gradually return to normal except when there has been localized injury to the cortex or a hematoma is present or the record was abnormal before the injury. In general, the degree of abnormality corresponds closely with the severity of injury and clinical improvement parallels the improvement in the E.E.G. Probably the greatest value aside from localization is in the differentiation of post-traumatic syndromes of organic type from malingering or hysteria. An abnormal record favors an organic diagnosis, but we must remember that 15 per cent of so-called normals have abnormal records. A normal record taken within a few weeks after a head injury is good evidence the symptoms are functional.

TREATMENT AND REHABILITATION

A most important aspect of treatment is the prevention of later sequelae by proper medical and surgical treatment immediately following injury. This means not only management of the trauma but also proper handling of the examination and especially the psychologic treatment, if no severe injury has been sustained. Certain specific measures, such as management of acute intracranial pressure and surgical conditions prevent late sequelae.

In the early psychotic states, particularly delirium, it is often a question as to whether cerebral edema or dehydration is the factor to be treated. Nutritional measures and at times certain vitamins are indicated, particularly if alcoholic complications exist. Sedation should be used very cautiously if at all, and then only those drugs which do not disturb cerebral pressure decompensation, e.g. paraldehyde. Morphine and barbiturates are contraindicated. If subarachnoid hemorrhage is present spinal drainage is often the best sedative treatment.

After the acute stages with abatement of medical and surgical complications the psychiatric care usually involves the treatment of the residual personality problem and general convalescence of the patient.

Rehabilitation should start as soon as the patient has recovered from the acute effects of the injury. Much can be done to prevent chronic invalidism by intelligent psychologic treatment during the early stage as well as later in the course of recovery.

The prevention of traumatic neurosis should be a prime objective. The physician who first sees the patient should not hospitalize him for a minor injury. He will thus avoid suggesting a serious injury when none exists. The emphasis should be shifted from compensation to rehabilitation.

The post-traumatic syndrome, probably organic but influenced by emotional and psychoneurotic factors, must be recognized early and given special treatment. There is rarely any reason why the patient should not be allowed to get up within a few days after regaining consciousness. Graduated physical exercises should begin as soon as the patient is able to be out of bed, to reestablish postural relationships. The purpose is to prepare him to adjust himself to the physical demands of his normal life. Gradually increasing activities, with at first activity, occupational therapy, mental exercises and later heavier tasks directed toward full restoration of physical-mental capacity should be the goal. Neurologic handicaps must be treated individually as indicated. The emphasis should be placed upon early activity rather than prolonged rest in bed. As yet, medical therapy for the relief of post-traumatic headaches and dizziness has not proved helpful. Sometimes complete spinal drainage and air replacement have relieved post-traumatic headaches. In certain cases permanent residual handicaps will have to be admitted and the patient's general routine and life adjustments planned according to his needs.

In the few organic psychotic reactions with permanent dementia, custodial care will have to be provided either at home or within an institution, according to the degree of behavior maladjustment present.

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Head Injuries*

Follow-up Studies After Forty-eight Hours

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Continued watchful care of all head injuries is necessary. The head injury, considered minor, characterized by transient unconsciousness of momentary duration and showing no neurological signs, may do poorly because of diabetes melitus, hypertension, heart disease, arteriosclerosis, chronic kidney disorder, alcoholism, drug addiction, etc. The patient with a so-called "minor" head injury may have been sent home, only to be found later in deep coma, which had been mistaken for natural sleep. There are cases that come under the classification of late traumatic apoplexy. These include such conditions as middle meningeal hemorrhage with symptoms appearing several days after the injury, cases of subdural hemorrhage having a latent period of several days, and cases in which the thrombosis of a cerebral vessel presents a clinical picture comparable to that seen in late hemorrhage. Often in these cases the secondary manifestations of symptoms of impending danger occur following a negative examination.

When after the first forty-eight hours, symptoms of shock, or of toxic dehydration, or infections (meningitis, brain abscess, osteomyelitis — complications of skull fractures, complications due to treatment, aggravation of any chronic disease process as for example —paresis, and the occurrence of a host of function states) appear they stress the importance of the continued watchful study.

This study must include the careful recording by nurses and other attendants of every change that has been observed in the patient. Repeated history of symptoms and physical examinations, including neurological examinations, and laboratory studies must be done. One cannot rely upon the original single examination. Findings may shift rapidly, each perhaps with grave significance. Therefore, the study of the state of conscienceness — the color and general appearance of the patient, the pulse, the temperature, the blood pressure, respiration, condition of the pupils, laboratory findings such as the spinal fluid and fluid intake and output—must all be carefully recorded.

The state of consciousness is one of the best indications of the degree of head injury. The history of the degree or duration or, even the occurrence of loss of consciusness as obtained from the patient, is not always reliable. Drowsiness is a state of dulling of consciousness in which the patient falls asleep as soon as he is left alone. Stupor is a state of partial loss of consciousness but the patient reacts to painful stimuli. Coma is a state of complete loss of consciousness in which the patient cannot be aroused by painful stimuli.

A short period of unconsciousness with a rapid return to normal, less than ten minutes, certainly indicates no structural changes in the brain such as contusion, edema, laceration or hemorrhage; and is probably due to temporary depression of the vasomotor center. Prolonged coma indicates structural changes. A lucid period or a return of consciousness followed again by coma, indicates hemorrhage and a space filling lesion such as hematoma. As in subdural hematoma, the second phase of coma may take place days, weeks or months after the lucid period.

The changes in the character of the pulse is of diagnostic importance if correlated with other findings. A slowing pulse following the lucid period of consciousness which is again followed by stupor and coma strongly supports the diagnosis of hemorrhage and of a space filling lesion such as extra, or subdural hematoma. In shock the pulse is rapid and often irregular. Increased intracranial pressure is associated with a slow pulse and rising blood pressure. In severe laceration of the brain with vasomotor disturbance or medullary collapse, the pulse becomes rapid and irregular and the blood pressure drops while the respiratory rate increases. Such a change of respiration rate with irregularity to Cheyne-Stoke type breathing — indicates severe cerebral injury. In hemorrhage with brain compression as from hematoma, the respiration is deep and stertorous and becomes irregular and Cheyne-Stoke in type if the compression is not relieved.

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*Read before the Omaha Mid-West Clinical Society, October, 1945.

Compression of the brain by hemorrhage is further substantiated, if in addition to coma, slow pulse, increase of blood pressure, and deeper stertorous breathing, the pupils show changes from normal to dilation. Occasionally there occurs a unilateral dilated and fixed pupil in compression of the brain by hemorrhage and may be on the same side of the compression. Bilaterally dilated and fixed pupils suggest more severe compression with medullary collapse and especially so if the pulse becomes rapid and irregular, the blood pressure drops and respiration increases. There are no changes of the character of the pupils in mild head injuries. Pupillary changes may be due to injuries to the eye itself and may be associated with a slow pulse due to the oculocardiac reflex. Fundoscopic examination of the eyes should be made carefully and repeatedly. Excluding other pathological changes such as detached retina, the examiner will find signs of choked disc with increased intracranial pressure. Choked disc will occur four or five days after the injury. Choked disc, headaches, and increased spinal fluid pressure may indicate compression of the brain by hemorrhage. Edema of the disc may be associated only with disturbance of cerebral spinal fluid balance, that is, disturbance of secretion and absorption of spinal fluid with or without hemorrhage. Other findings as outlined above must be present to confirm the diagnosis of hemorrhage with compression. If choked disc occurs with no hemorrhage, it subsides to normal by spinal fluid drainage.

The spinal fluid shows no changes in mild brain injuries. In contusions and lacerations, with hemorrhage, resulting in extradural or subdural hemorrhage or with infections, such as meningitis, the spinal fluid pressure will be increased. The cell count and total protein of the spinal fluid will be increased. Blood may or may not be present but is present in most cases if the injury is severe enough to produce coma lasting longer than ten minutes. The sugar and chlorides are decreased in the spinal fluid in presence of infection and bacteria, and returns to normal as infection subsides. This is a good prognostic sign.

The spinal fluid pressure must be determined accurately by either water or mercury manometer, and never by force of spinal fluid as it leaves the needle nor by counting the drops. Errors may be on basis of interpretation of the spinal fluid pressure found. Pressure lower than expected may be due to shock or dehydration. Spinal puncture should be done in case of doubt as to cause of coma or when there is a doubtful history of head injury. Signs of meningeal irritation such as stiffness of the neck, and especially with fever, are indications for spinal puncture. Care must be exercised as to the amount of fluid removed.

With a history of head injury, the following general treatment must be considered—rest in bed, quiet, nourishment, adequate fluids, minerals and vitamins, and close attention to bowels, bladder and skin. It must be stressed that treatment at all times must be as indicated by the patient.

Rest in bed is too often prolonged to the point that certain patients become distrustful even though informed that the injury is mild. In mild injuries, rest and quiet for two or three days in the hospital is sufficient, after which, the patient may be sent home to remain in bed for one week. He may then be allowed up if he is symptom free.

In severe head injuries, rest in bed in a quiet darkened room for three weeks or longer is advisable. This period must be insisted upon if symptoms remain or recur intermittently. If the patient complains of severe headache or if his reaction to mild headache seems exaggerated, he should be put to bed to rest. This procedure may be of great help in the hyperreacting or exaggerating type of patient. Visitors should be restricted as much as possible and always supervised. They are ushered out of the room if they begin to discuss the case or to make comparisons with other similar cases of which they have heard.

The indications and contraindications for maintaining a positive or a negative fluid balance is of great importance. The patient by neglect may become markedly dehydrated and thereby show toxic symptoms. This will occur three to four days or ten to fourteen days after the injury. In marked dehydration drowsiness, stupor, or coma may develop or be accentuated if present. Dehydration is caused by lack of proper fluid balance. Nausea, vomiting, excessive sweating, hyperventilation and diarrhea, or too strict fluid restriction, too frequent use of hypertonic fluids and the use of magnesium sulphate either by mouth, intravenously or per rectum will produce symptoms of dehydration. Surgical procedures may aid in the development of toxic dehydration. Dehydration need not be serious or fatal, but if not recognized or if allowed to progress it may be fatal. Twenty per cent die in spite of treatment, or if diagnosis and treatment are delayed. There is a rising temperature and the intracranial pressure is subnormal. Oliguria is marked with a concentrated urine which contains albumin and casts.

The response to fluids is spectacular. These may be given by mouth if possible, or by vein or per stomach tube, intramuscularly, or per rectum. 3,000 cc. per twenty-four hours usually is well tolerated in form of glucose, distilled water or normal saline. This should be continued until spinal fluid pressure is normal or slightly above normal and until the twenty-four hour urine output equals the twenty-four hour fluid intake or until the urine output is 1,500 cc. with a specific gravity of 1,012 to 1,018.

Shock must be considered as it may occur following surgery. Its manifestations may be similar to toxic dehydration differing in temperature reaction and absence of history of dehydration. In shock the temperature is subnormal as a rule. The blood pressure falls to lower levels. Pallor. cyanosis, and rapid pulse and respiration rates are noted. The treatment consists of fluids, transfusions and hypertonic glucose. Caffeine, sodium benzoate of 7½ grains intravenously every three or four hours may be given.

What are other indications for study and control of water balance? Dehydration methods may be used in coma, cerebral edema, with persistent increased spinal fluid pressure and symptoms of headache and dizziness. Dehydration therapy must not be used in presence of brain injury with hemorrhage. Dehydration may cause hemorrhage to start again by decreasing the brain volume or decreasing the intracranial pressure.

In conclusion the following points are stressed:

1. Medical conditions and complications may affect the cause and prognosis of head injuries no matter how minor the injury may appear early.

2. Interns, nurses, and attendants must be instructed in the observation and care of head-injury cases.

3. Discussion of significance of state of consciousness, pulse temperature, blood pressure, respiration, condition of the pupils, spinal fluid and fluid intake and output.

4. Discussion of toxic states, namely, shock and toxic dehydration.

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ACTION OF PENICILLIN PROLONGED BY CHILLING OF INJECTION AREA

Gonorrhea patients have been effectively treated with one large dose of penicillin injected into the upper arm muscle after thorough chilling of the area with ice, according to a report appearing in the March 9 issue of The Journal of the American Medical Association. This chilling is done before and after the injection to prolong the effects of the drug.

Lieut. Commander Max Trumper, from the Naval Medical Research Institute, and Commander Gershom J. Thompson, from the U. S. Naval Hospital, say that they treated 100 patients who had uncomplicated gonorrhea. These patients were divided into three groups, group one receiving 50,000 units of penicillin dissolved in a salty solution, group two receiving 70,000 units, and group three 100,000 units.

The resultant cures in the first two groups were 77.3 per cent and 85.7 per cent respectively. The 100,000 unit dosage cured 91 per cent of the patients. Commenting on this, the authors say that "this percentage compares favorably with the results obtained by others using multiple injections as well as the single injection of 100,000 units of penicillin in mixtures of beeswax and peanut oil.

"It can be concluded from the high percentage of cures that the chilling technic prolonged the effective action of penicillin, reduced to one the number of injections required to treat uncomplicated gonorrhea and rendered that injection painless, all of which was accomplished without introducing any other foreign substance intramuscularly."

The experiments were carried on at the National Naval Medical Center at Bethesda, Md.

Malaria: A Problem in the Care of the Military Service Veteran*

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History shows that malaria has plagued the armies of the world for untold years, including the armies of the United States. This paper will deal with the experience of the military forces in the Pacific Ocean Areas and more specifically the South Pacific Area with discussion of the problem presented by the war veteran with malaria in Nebraska.

Medical science learned considerable about malaria during the war period. The peculiarities of the disease in various parts of the world, the different habits of the mosquito vector and the drugs for prophylaxis and treatment as well as new methods and insecticides for the control of the mosquito were studied and applied. The amount of research on the various phases of the subject was tremendous. Several thousand different drugs were experimented with in the effort to find a true prophylactic or a drug that would produce a true cure in one course of treatment. These were not found and drugs known before the war were the mainstays for these purposes. It has been said that Germany would not start the war until she had a sufficient supply of atabrine for she knew she would be cut off from the supply of quinine.

The methods used in the control of the mosquito in the P.O.A. will be skipped except to say that "We threw the book" at them. D.D.T. when it became available in quantities became a valuable, but not dominant, weapon. The total war against the mosquito and other insects was most effective.

Our main interest lies in the types of clinical malaria seen and the prophylaxis and therapeutic care of the military men and women. The prophylaxis was a most interesting study. Quinine and atabrine were the two most common drugs used for this purpose, though several others were tried with unsatisfactory results. It was known early that we would be cut off from the supply of quinine, and a far sighted "hoarding" by certain divisions of the government resulted in a sufficient supply for all needed purposes when the distribution became proper. However, without atabrine we would not have had a sufficient supply of quinine to supply all needs. Atabrine was a German discovery and was patented in this country. The formula they presented to the patent office was said to be deficient, but our chemists easily solved that problem and soon produced a superior product.

There was much controversy in the early days of the war regarding the relative merits of the two drugs. It was generally conceded that atabrine taken routinely over a few months would be quite deleterious to health —just how was not clear, "but it was dangerous!" "Quinine, however, though it had some undesirable side effects, was not a health hazard." The troops reaching the malarious areas in the early phases of the war had but little atabrine and less quinine and what they had was often in the lower holds of the ship and was not available for several days.

With only a relatively small supply of quinine it was known that atabrine would have to be used for prophylaxis but no one knew just what dosage to use. Each unit surgeon experimented with it. One method used was, one tablet (0.1 gram) given each two days with two on Sunday. Another plan that lived longer was to give one tablet six days per week, skipping Sunday. It seemed that something different should be done on Sunday. Finally the War Department directed that one tablet daily be given and increased to two daily in hyperendemic areas upon the advice of the senior medical officer. Where possible the men were started on prophylactic doses before reaching a malarious area. It required about three weeks to reach a protective atabrine blood level for the mass of men taking one tablet daily. When less time was available the dose was increased to two tablets daily for a week. This brought the atabrine blood level up more quickly.

Atabrine proved superior to quinine as a prophylactic, or I should say suppressive, for malaria in the military services. The protection afforded was equal to that given by quinine and it could be taken in larger quantities. A dose of quinine is metabolized and eliminated by the body in about twelve hours. The blood level of atabrine built up by any dosage was reduced about 50% weekly after discontinuance. This was a distinct advantage, for when it was thought probable that a group of men might be in such a combat position that for a few days there might be a break in their atabrine ingestion, the dosage could be increased for a few days with a resulting rise in the atabrine blood level that would protect them until they could again resume the routine dosage. This was not possible with quinine.

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*Read before the Sixth Councilor District Meeting, April 8, 1946.

Aircraft pilots were unable to take sufficient quinine routinely to protect themselves for it often upset their equilibrium. Atabrine did not produce this undesirable effect. It was estimated that about one man per thousand was unable to take atabrine in the prophylactic dosage. Atabrine often produced a nausea the first or second day but this seldom persisted. In many dark skinned individuals atabrine caused a yellowish discoloration of the skin. This was a deposit of the dye in the body tissue and disappeared when the drug was discontinued. Some persons developed dermatitis after long ingestion of atabrine and I am told the drug manufacturers had to rotate the personnel working in their atabrine sections for this reason. Thousands of men took it daily for 18 to 24 months without apparent damage.

I saw the policy regarding release from suppressive therapy change several times. It was thought in the early days of the war that when the men could be removed from a malarious area or the mosquito control was sufficient it was best to release them from suppressive therapy and let them have their malaria and be rid of it. All too often this result was not obtained. It happened that when certain large organizations were removed to a non-malarious area and released from suppressive therapy many of the men developed clinical malaria and then relapsed repeatedly. A few months later they were in worse condition than when reaching the rest area. It was finally directed that those who had had vivax, or benign tertian malaria, would continue on the routine dosage of atabrine as long as they were in the theatre of operations. The men in non-malarious areas or where good mosquito control was evident and who had not had vivax malaria were released from suppressive therapy. An interesting sidelight was the apparent fact that though atabrine would suppress with difficulty an initial clinical attack of Falciparium or malignant malaria it would, if taken for a few months afterward, prevent a relapse.

Another interesting fact was that though a clinical case might develop while an individual was taking atabrine for suppression —when the dosage was increased to therapeutic levels the same response was evident that would be expected if none had been taken before.

This brings us to the treatment of the clinical cases. During the first few months of the war in the South Pacific almost every medical officer called upon to treat malaria experimented with various treatment plans with quinine, atabrine, plasmochin, mapharsen, and the sulphonamides separately and in combinations. The most common procedure was to start with quinine, change to atabrine for a few days and end with a few doses of plasmochin. Almost all men encountered some toxic effects with the plasmochin and it was finally banned by the higher headquarters. Some doctors reported excellent clinical responses and few relapses with mapharsen but this was not the universal experience. The added dangers of giving an intravenous arsenical more than offset any special benefit derived from its use. Clinical cases of malaria would often show partial or complete remission with the use of some of the sulphonamides but in general they were very disappointing in the treatment of malaria.

Quinine and atabrine became the drugs of choice in various dosages and plans. After a couple of years the War Department directed that atabrine alone would be used unless the attending doctor decided that quinine was indicated for a special reason. The experience gained in treating several thousand cases with quinine alone and atabrine alone showed almost identical clinical responses except that with quinine the temperature returned to normal a few hours earlier. There was no demonstrable difference in the relapse rate following therapy with the two drugs. The recommended dosage of atabrine was set at two tablets each six hours for five doses followed by one tablet three times daily for six days or a total of 28 0.1 gram tablets in seven days.

How long will the veterans who contracted malaria retain their infections and be subject to clinical relapses? This is a difficult question to answer definitely, though we do have considerable information on it for a certain period of time. Several thousand men were observed for as long as two years following their exposure to malaria and under varied conditions. That is — complete release from suppressive therapy, and release from suppressive therapy after various periods of time up to two years. The response is approximately as follows: clinical cases will begin to occur almost immediately and will rise rapidly from the end of the first week and reach a peak at about five weeks. The curve is then downward for the primary cases and relapses begin to appear. The peak of relapsed cases occurs about six weeks after the peak of primary cases. The decline in case rates is moderate for a few weeks and then almost becomes level for several months. The strain of vivax malaria present in the South Pacific caused as high as 85% relapses in some groups of men and I doubt if it was below 60% in any sizeable group. Those having two relapses were considerably less than those having only one and so on, but many cases were reported who had ten, twelve, and fifteen or more admissions for malaria.

There were more than 75 000 cases of malaria in the South Pacific Area with less than one hundred deaths. This was a surprise to us for we usually think of the death rate being much higher than this. Likewise, the benign vivax malaria was a far greater military problem than was the malignant type because of the tendency of the former to relapse repeatedly. The malignant type had a very low, five to ten per cent, relapse rate.

We can expect more than 75% of the returned service men to be free of their malarial infection within two years and well over 90% within three years of their departure from their last malarious area. The accurate percentage of this we can determine only with the aid of the practicing physicians. Malaria is a reportable disease and we urge you to report the cases you treat in order that we may collect these statistics. Some of the men—one, two, or three percent—will have their infections for many years and possibly for life.

How should you treat the cases you see? I know of no better plan than the one mentioned above. It was recommended by the committee on tropical diseases for the military services and has the experience of the tropical disease specialists in its conception. Some doctors are advising the daily ingestion of atabrine for six months following treatment. I doubt the wisdom of this unless the disease is relapsing so frequently as to endanger the individual's health. A person will develop little if any immunity while taking suppressive therapy.

* * *

NEW TECHNICS REDUCE DEATH RATE FROM SURGERY FOR CANCER OF LUNG

A Boston physician reports that during the last four years there has been a great reduction in the death rate of patients treated with surgery for cancer of the lung. Over a 15 year period he observed seven deaths in 19 cases of surgery for the first 11 years and one death in 30 cases in the last four years.

Ralph Adams, M.D., from the Department of Surgery, the Lahey Clinic, Boston, writing in the March 2 issue of The Journal of the American Medical Association, credits the lowered death rate to improvements in the preparation for operation, in anesthetic administration, effective closure of the infected bronchus, reduction of shock, eradication of infection and prevention of the partial collapse of the lung.

The author says that the frequency of cancer of the lung, compared with all other cancer, is between six and eight per cent. The most susceptible age is between 40 and 50. The male preponderance was 128 to 29, or 81.5 per cent.

Symptoms of wheezing, shortness of breath and coughing with or without pus or blood in the sputum are common signs of cancer of the lung. Hoarseness, pain, fever and loss of weight are less obvious symptoms, but they may occur.

Early cancer of any type is curable, including cancer of the lung, but unfortunately it is often difficult to make an early diagnosis because the symptoms may originally suggest a less dangerous disease of the lung such as asthma, bronchitis or pneumonia.

Dr. Adams followed 157 consecutive cases of cancer of the lung at the Lahey Clinic in the 15 year period ended Dec. 31, 1944. Of the 49 of these patients who underwent surgery, eight died in the hospital. Twenty-three deaths subsequently occurred from recurrence of the disease, while four patients are living with evidence of recurrence. Fourteen patients are alive and well at the present time with a chance for a five year survival. The longest survival to date is nine years, according to Dr. Adams.

Proceedings of the Staff Nebraska Methodist Hospital

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Case 1. Spontaneous cerebral hemorrhage in a patient with essential hypertension.

DR. LOWELL DUNN (Clinical History): The patient was a 52-year-old female whose chief complaint was hypertension and arthritis of the hands. I first saw her in October, 1945 and, after examination, advised that she be admitted to the hospital for study. At that time she gave a history of having had arthritis and high blood pressure for about five years. A diagnosis of gouty arthritis had been made at one time but was found later to be incorrect. In 1940 her systolic blood pressure was 200 but the patient herself stated that it was usually around 180. She had been taking one thiocyanate tablet per day but apparently got very little relief.

According to the interne, she was already complaining of numbness on the left side when she was admitted and within an hour there was obvious left-sided hemiplegia. Her blood pressure was 220/120. She vomited and became unconscious shortly after the paralysis appeared. The rapidity with which she went into coma after her symptoms began made us feel that she had a cerebral hemorrhage with a rupture into the ventricular system. She died at 5:00 a.m. on the day following admission, about 12 to 15 hours after her cerebral symptoms began.

The concept of the pathogenesis of cerebral hemorrhage is still in a controversial stage. It is quite certain that there must be a preceding disease of the vessel walls before rupture can occur and arteriosclerosis is one probable factor, miliary aneurysm another. The latter concept goes back to Virchow in 1851 and later was re-emphasized by Charcot and Bouchard in 1868. Charcot found aneurysms in 77 consecutive cases. These aneurysms do not always accompany arteriosclerosis but we may have hemorrhage following an occlusion. In addition, one may have false bleeding in patients with hypertension. Alcohol, lead, syphilis, and gout may also lead to hemorrhage. A hemorrhagic diathesis may be responsible for the bleeding. Trauma, delayed traumatic apoplexy or transient fluctuation in the blood pressure may be important causative factors. In handling patients with hypertension or coronary disease it is sometimes felt that they should be guarded against excitement. This limitation of activity may be of doubtful value. Jones, in a series of 92 verified cases of hemorrhage, showed that 19 occurred between midnight and 7:00 a.m.

DR. HAROLD GIFFORD: This patient was first seen in 1906. At that time her vision was all right. She was seen again in 1933 in my office and she had an acute chorioretinitis. This was due to an inflammatory lesion. It might have been caused by some vascular disease. No infection, however, was found. I noted no atheromatous changes in the vessels.

DR. JOHN R. SCHENKEN (Postmortem Findings and Discussion): The important findings at postmortem were as follows:

The heart weighed 330 gm. There was obvious left ventricular hypertrophy. The chambers were not dilated. The lungs showed no important changes. The spleen, pancreas, gastro-intestinal tract, liver and gallbladder presented normal markings. The right kidney weighed 138 gm., and the left 156 gm. The capsule of each kidney stripped readily but left a finely granular surface. On section, the striations of the cortex were well preserved. Two yellowish nodules, one of them measuring 1 mm., and the other 1.5 cm., were present. On microscopic examination they proved to be lipomas. With the exception of the brain, the remainder of the organs showed no important changes.

The brain weighed 1455 gm. The external convolutions were markedly flattened and the subarachnoidal space over both cerebral hemispheres was obliterated. A slight amount of hemorrhage was present in the subarachnoidal space over the surface of the brain and recent blood clot was observed in the foramen of Magendie and in the foramen of Luschka. The floor of the third ventricle had a purplish discoloration and was bulging. Coronal sections of the brain after a few days' fixation revealed that there was a massive hemorrhage in the right cerebral hemisphere immediately above the roof of the inferior horn of the lateral ventricle. This measured about 4x3 cm. There was free communication with the inferior horn of the lateral ventricle as well as with the body of the lateral ventricle. The vessels at the base of the brain showed a moderate degree of atherosclerosis. Microscopic examination did not add any important findings.

We therefore have a case of essential hypertension in which the immediate cause of death was spontaneous massive cerebral hemorrhage. The chief diagnoses were (1) cardiac hypertrophy (essential hypertension), (2) benign nephrosclerosis, (3) spontaneous cerebral hemorrhage with ventricular hemorrhage, and (4) lipomata of the kidney.

Cerebral hemorrhage or infarction is responsible for about 15 to 20 per cent of the deaths with essential hypertension. Sixty per cent die because of cardiac disease and about 10 to 15 per cent die of renal insufficiency. The remainder die of causes not related to hypertension.

The cause of cerebral hemorrhage is a complicated problem. Many interesting theories have been advanced as to the cause of spontaneous cerebral hemorrhage. They may be summarized as follows:

(1) The rupture of a miliary or congenital aneurysm. It seems unlikely that congenital miliary aneurysms are responsible for the hemorrhage in the majority of cases.

These usually involve the vessels which comprise the circle of Willis rather than branches of the intracranial vessels which are embedded within the brain substance. They are much more commonly seen in young individuals who instead of showing hemorrhage into the brain substance show hemorrhage into the subarachnoidal space.

(2) The rupture of a dissecting aneurysm. If one is to accept this theory one must assume that dissecting aneurysms occur much more commonly in intracranial vessels than in vessels elsewhere in the body. This does not seem likely.

(3) The third theory is based on the contention that there is a pre-existing atherosclerotic ulcer which weakens the walls to such an extent that rupture occurs. Since most brains with spontaneous cerebral hemorrhage show arteriosclerosis it seems likely that this is at least one of the responsible factors.

(4) The fourth theory is that there is a perivascular softening which allows the vessel to rupture because of loss of support. This seems to be a difficult theory to accept because the blood vessels at the base of the brain, except in the case of congenital aneurysm, are rarely the cause of spontaneous rupture in hypertension. Yet these vessels have no other support than the fluid in the subarachnoidal space.

(5) The fifth theory is that the vessel ruptures because a segment of its wall is paralyzed due to excessive nervous stimuli. This obviously cannot be observed in postmortem material.

(6) The sixth theory is based on the idea that there is an angiospasm of the vessel wall of sufficient duration to cause a degeneration of both vessel wall and brain substance supplied by this vessel distal to the point of angiospasm which permits rupture of the degenerated vessel walls. This also would be difficult to demonstrate.

(7) This theory is similar to the sixth except that the proponents believe that there must be an arteriosclerotic narrowing of the vessel wall beyond the point of angiospasm before degeneration can occur.

(8) The last theory is based on the idea that the degeneration of brain tissue and blood vessel wall occurs distal to a point of arteriosclerotic narrowing without an angiospasm.

It is obviously almost impossible in most cases to track down the actual cause of the rupture in any given case of spontaneous cerebral hemorrhage because the vessel is destroyed at the site of hemorrhage and so is the immediately surrounding brain tissue. Hence, both vessel wall and degenerated brain tissue, if that were present, are lost in the mass of hemorrhage. Whatever the cause may be it seems absolutely certain that one must have a weakened vessel wall as a primary factor and a hypertension as an accessory factor.

DR. M. C. ANDERSON: I do not think that hypertension is necessary because cerebral hemorrhage may occur without it.

DR. JOHN R. SCHENKEN: You are perfectly right but I wish to emphasize this point—that patients with hypertension are more prone to have massive cerebral hemorrhage whereas patients without hypertension but with cerebral arteriosclerosis are much more prone to have infarctions rather than hemorrhages and hence the factor of hypertension seems to be an important one in determining whether or not the vessel will occlude or whether it will rupture.

Case 2. Chronic subdural hematoma following minor trauma.

DR. EUGENE SIMMONS (Clinical History): The patient was an 81-year-old white male. He was first seen on October 5, 1945, and the following history was obtained. Nine days before, the patient had fallen down a nine-step flight of stairs landing on his head in a corner. He had had a headache for two days and pains involving various portions of his body. He also complained of a heavy sensation in his head at times, a sore neck, sore shoulders, soreness over the lower right ribs and over the lower back but in general did not feel too badly. He had had two strokes three years ago and, in 1944, his prostate was resected for what he was told was a carcinoma. He had had incontinence of urine ever since. Since his strokes three years ago he had been somewhat weak and he had found it difficult to walk. I saw him again on October 28, twenty-three days later. He was obviously having more difficulty in walking and he had to be fed. He had a right-sided weakness. On October 30 he had a complete paralysis of the right side. His systolic blood pressure ranged between 180 and 200 and the diastolic was 100. He was sent to the hospital. There was a gradually increasing coma with loss of the use of all extremities and, finally, a hyperpyrexia of 106° F. All laboratory work was negative except for an albuminuria and a marked pyuria. He died 39 days following his accident. We were of the opinion that he had a spontaneous cerebral hemorrhage.

DR. A. I. FINLAYSON (Discussion): I really can't add very much except to say that in spite of the history of trauma the time interval between the day of the injury and the onset of symptoms is unusually short for the development of a subdural hematoma. With the history of a previous stroke the possibility of a vascular occlusion or intercerebral hemorrhage would have to be considered. It might have been benefited by an attempt to drain the blood cyst within the brain and this would have been done through a trephine, which would also have revealed the presence of a subdural hematoma if there was one.

DR. JOHN R. SCHENKEN (Postmortem Findings and Discussion): Postmortem examination revealed the following pertinent findings. The heart weighed 600 gm. The mitral and aortic valves were somewhat firmer than normal because of fibrosis but they were not stenotic. Each of the sinuses of Valsalva in the aortic valve showed calcification as result of arteriosclerosis. There was a bilateral bronchopneumonia, a chronic passive congestion of the lung, liver and spleen. The pancreas and adrenals appeared normal. The kidneys showed changes of a mild degree of benign nephrosclerosis. The bladder showed evidence of the prostatectomy but revealed no evidence of carcinoma.

The most interesting findings were in the brain. On either side, but more so on the left than on the right, there was an accumulation of a purplish black, liquid blood which was in the subdural space. The blood was well circumscribed by a thin, delicate membrane. The arachnoidal membrane beneath the hemorrhage showed a brownish discoloration which on microscopic examination proved to be due to phagocytosis of hemosiderin pigment. This is therefore a case of bilateral subdural hematoma resulting from trauma. In many cases trauma is so slight that it is often forgotten but in this case we have a very clear cut history of the patient's having fallen downstairs headlong and landed on his head. The anatomical diagnoses were: (1) cardiac hypertrophy (essential hypertension), (2) arteriosclerotic fibrosis and calcification of the mitral and aortic valves, (3) chronic passive congestion of the lungs, liver and spleen, (4) bronchopneumonia (bilateral), (5) benign nephrosclerosis, and (6) traumatic subdural hematoma (bilateral).

Hemorrhages which occur in the brain as a result of injury are generally classified as to location. First, the extradural hemorrhages occur between the dura and the calvarium. These most frequently occur in young and middle-aged people and rarely in the aged. They occur oftener in males than in females. They are due to the fracture of the temporal bone and rupture of the middle meningeal artery or its branches which rest in a groove in this bone. As a result of this rupture, blood accumulates between the dura and the calvarium. In the very aged, this type of hemorrhage rarely occurs to any extent because the dura is so firmly adherent that bleeding cannot take place. In children this type of hemorrhage rarely occurs because the groove in which the middle meningeal artery lies is so shallow that with fracture the vessel is not lacerated.

The next type of hemorrhage occurring as a result of trauma is a subdural hemorrhage or subdural hematoma. Subdural hematoma was first described by Virchow in 1857 under the name of hemorrhagic pachymeningitis interna. It is now known that the lesion is not an inflammatory one. Putnam in 1921 and Cushing in 1925 recognized subdural hematoma as a clinical entity. The lesion can be divided into two groups, acute and chronic. In the acute lesion there are two distinct types: (1) the massive subdural hemorrhage in which there is gross trauma to the skull and brain and in which the subdural hemorrhage plays only a minor part in the overall picture; and (2) that which follows a minor injury but plays a major role in the illness. Often the trauma is slight and is therefore frequently overlooked as a possible etiological cause of the patient's illness. Although it occurs most frequently in newborns as a result of birth injury, it may occur at any age. In the chronic type, the lesion may occur either as a result of survival from the acute type or it may be chronic almost from the beginning. One can expect to have a well defined capsule, particularly in the outer coat near the dura, in a period of ten to fourteen days. The symptoms may vary in intensity from only minor personality changes to an unconsciousness characterized by the so-called "in and out" consciousness described by Foster Kennedy. The chronic type is more frequent in old age. A dilated pupil on the same side as the hemorrhage is frequently seen. One-third of the cases are bilateral and therefore trephining on one side may not be adequate, particularly in view of the fact that in the acute cases of subdural hemorrhage about 50 per cent show a homolateral paralysis in the early stages and a contralateral paralysis later.

The pathogenesis of subdural hemorrhage has been pretty well worked out. In most cases the hemorrhage comes from the bridging veins which pass through the subdural space from the cerebral hemispheres into the superior longitudinal sinus. Subdural hemorrhage is probably caused by the following two factors: lack of pliability of blood vessels and a trauma either on the front or back of the head. In most cases it is the head in motion which hits a fixed object rather than a moving object which hits the head. Blows in the antero-posterior axis permit the cerebral hemispheres to move back and forth enough to rupture some of these cerebral veins, whereas blows received laterally do not cause much movement of the cerebral hemispheres because of the rigidity of the falx cerebri.

One of the distinguishing features between extradural and subdural hemorrhage is that, in extradural hemorrhage, the blow must be severe enough to cause skull fracture. There is a history of unconsciousness followed by a period of lucidity and a lapse into coma again. In subdural hemorrhage, the trauma is not usually great enough to cause unconsciousness, but as the disease progresses the classical story is that there is a history of an "in and out" consciousness. Another interesting difference is the fact that symptoms of subdural hemorrhage may be delayed for a few days or weeks or months or even years. This presupposes the fact that there is continuous bleeding and continued increase in size of the hematoma and can be explained as follows: As the blood disintegrates the osmotic pressure is increased and therefore fluid goes into the hematoma, thus increasing its size. In addition, granulation tissue forms on the dural side, rarely of any consequence on the arachnoid side. The granulation tissue is composed of very large, thin walled capillaries which bleed readily and periodically bleed into the hematoma, thus further increasing its size.

The next type of hemorrhage is the subpial or subcortical hemorrhage. This may occur as a result of injury which on occasions might be relatively mild. It has attracted a good deal of interest in the last few years because some of these cases have been successfully treated by neuro-surgeons.

Subarachnoid hemorrhage is the last type. This is probably the commonest of all of the hemorrhages. It is present in practically all severe brain injuries.

DR. A. I. FINLAYSON (Discussion): In most cases in which the paralysis is on the same side of the body as the cerebral lesion, the paralysis is the result of compression of the mid-brain. It is actually due to pressure of the crus of the tentorium upon the cerebral peduncle on the opposite side. This produces a homolateral paralysis spoken of as the crus syndrome and I would think it was the reason for the paralysis in this case.

REFERENCES

1. Pickles, Wilfred: Bleeding in Head Following Injury; Some Unusual Examples. Rhode Island M. J., 26:51, 1943.
2. King, J. E. J.: Hematomas: Extradural, Subdural, and Subcortical. Am. J. Surg., 59:248, 1943.
3. Grantham, E. G., and Smolek, E. A.: Calcified Intracerebral Hematoma. Ann. Surg., 115:465.
4. Buckley, P. J., and McKinney, J. M.: Brain Hematoma (Review of Literature and Report of 4 Cases). New England J. Med., 224:716.
5. Moritz, Alan R.: Pathology of Trauma. Lea & Febiger, Phillie.
6. Munro, D.: Cranio-cerebral Injuries: Their Diagnosis and Treatment. New York, Oxford Uni. Press, 1938.
7. Putnam, T. J. and Cushing, H.: Chronic Subdural Hematoma: Its Pathology, Its Relation to Pachymeningitis Hemorrhagica and Its Surgical Treatment. Arch. Surg., 11:329, 1925.
8. Gardner, W. J.: Arch. Neurol. & Psychiat., 27:847, 1932.
9. Zollinger, R., and Gross, R. E.: J.A.M.A., 103:245, 1934.
10. Courville, Cyril B.: Pathology of the Central Nervous System. Pacific Press Publishing Association, Mountain View, Calif.

* * *

INFECTIOUS COLON DISEASES RESPOND TO SULFATHIAZOLE DERIVATIVE

A new sulfathiazole derivative, phthalylsulfathiazole or sulfathalidine, has been found to be superior to other drugs in the treatment of infectious diseases of the colon, according to Michael R. Streicher, M.D. of Chicago.

Writing in the December 15 issue of The Journal of the American Medical Association, Dr. Streicher, who is Assistant Professor of Medicine at the University of Illinois College of Medicine, said that his experience led him to believe that this drug, taken by mouth, was less poisonous and more effective in arresting the growth of bacteria "than any intestinal agent used previously."

The author treated 100 patients with this drug, 80 of whom had chronic ulcerative colitis. The others were suffering from other infections of the colon. Dr. Streicher wrote that with sulfathalidine treatment of the 100 patients under study, 84 demonstrated good results, six showed fair results and 10 patients showed poor reactions to treatment.

Chronic ulcerative colitis is a disease marked by numerous ulcerations in the colon; it has a chronic course with periods of abatement of the symptoms and then periods in which the disease increases in severity. It usually affects young and middle-aged adults. The symptoms are abdominal cramps, fever, and weakness. As time goes on there is progressive emaciation, anemia and weakness and the blood pressure falls.

RECOVERY FROM HEART DISEASE UNCERTAIN IN OLDER PATIENTS

The older the patient when coronary thrombosis strikes the less chance for survival, according to a study made by two Detroit physicians.

Writing in the June 1 issue of The Journal of the American Medical Association, Ralph L. Fisher and Morris Zukerman, of the Department of Internal Medicine, Alexander Blain Hospital, say that "general experience gives a better outlook to the younger patient with coronary occlusion."

Reviewing 108 patients with this type of heart disease, 77 of whom died, the authors noted that the average age of onset of the disease among the patients who died was 59.22 years. The average age of onset in the surviving group was 54.73 years.

Coronary thrombosis occurs when a clot forms in one of the coronary arteries, or more frequently in one of the branches, and a portion of the heart muscle is deprived of blood for a length of time sufficient to do damage. The seriousness of the accident depends on the size and location of the branch blood vessel which is stopped up by the clot. Pain is present because some part of the heart muscle is deprived of its necessary supply of blood.

This disease is one of the leading causes of death in this country. However, it is not on the increase as many people believe. The real reason for more heart deaths is the increase of the aged. There are more old people now in this country than there were at the turn of the century.

Factors which are unfavorable to recovery in coronary thrombosis patients are listed by the authors as: advanced age, excessive weight, multiple attacks and preceding angina pectoris. This form of heart attack is usually brought on by exertion. The study indicates that from 30 to 40 per cent of all patients with this affliction eventually have an attack of coronary thrombosis.

Factors which are favorable to recovery in coronary thrombosis are listed as: normal size of the heart on x-ray examination, absence of decompensation or heart failure, normal heart on physical examination and early rising from bed after an attack in elderly patients.

Although high blood pressure was found to be present in many of the patients before the disease set in, the authors feel that it does not affect the course of coronary thrombosis. This has been demonstrated by postmortem examinations which indicate that although high blood pressure occurs more often in Negro than white patients there are significantly fewer cases of coronary artery disease to be found among them. Therefore if having high blood pressure is a major determining factor in this type of heart disease there would be proportionately more coronary disease in Negroes than in the white population.

The body build of the patient was found to be an important factor in this disease. The heavy set, overweight, frequently athletic person appeared to be more susceptible to coronary thrombosis than did the normal or underweight person.

Occupation was found to be another determining factor. One investigator who analyzed 5,116 deaths due to coronary thrombosis on the basis of the patient's occupation calculated the "occupational mortality per hundred thousand as 154 for professional men, 144 for proprietors, managers and officials, 128 for clerks and salesmen and 107 for workers (all classes) at ages 36 to 64."

Another group of investigators reviewing 100 cases of coronary disease noted that 67 per cent of the patients were business men of executive type or those engaged in small businesses which demanded excessive individual effort. The frequent occurrence among traveling men was also noted. They suggested that those who work hard and have irregular living habits are more vulnerable to this disease. Ten per cent of the group were physicians.

Drs. Fisher and Zukerman observed that the death rate increased progressively with recurrent attacks of coronary thrombosis. During the first attack 41 of the 108 patients died, 11 died during the second attack and four died in their third attack.

Thirty-six patients noted the onset of their illness during the day, whereas 21 patients had their attack at night. The authors suggest that the slower circulation noted during sleeping hours has been the predisposing factor.

"The interval of time from the onset of the illness to the time when the study was begun was 34 months," the authors state, "considering only 26 patients known to be alive, whereas the average life span following illness for the deceased patients was 13.4 or 15.8 months, not considering those patients who died within 24 hours after their initial attack."

In this study there were 79 male patients and 29 female patients, giving 73.14 per cent males as compared with 26.85 females. The authors cite another investigator who declared that coronary disease is four to six times more prevalent among men than among women.

Treatment was individualized for each patient. Morphine and other drugs were given as the need arose to kill pain and alleviate other distressing symptoms such as nausea and vomiting. The diet consisted of approximately 1,500 to 1,800 calories a day.

"The patients are not permitted to bathe themselves," the authors state, "and are fed for a period of two weeks. After this time they are permitted slight activity while in bed; namely, bathing and feeding themselves. At the end of three weeks the older patient is permitted to sit up in a chair for one-half hour the first day, with increases of 15 to 30 minutes each following day. The younger patient is permitted out of bed at the end of the sixth week and put through the same routine. It is felt that prolonged bed rest slows the circulation in the older patient, thereby predisposing him to further attacks of myocardial infarction. Decreasing the period of bed rest also tends to lessen the incidence of pneumonia and the troublesome complication of painful joints and/or ankylosis of the joints."

The average length of stay in the hospital for the older patient is four weeks, and for the younger patient seven weeks.

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THE PLATFORM OF THE AMERICAN MEDICAL ASSOCIATION

The American Medical Association advocates:

1. The establishment of an agency of federal government under which shall be coordinated and administered all medical and health functions of the federal government exclusive of those of the Army and Navy.
2. The allotment of such funds as the Congress may make available to any state in actual need for the prevention of disease, the promotion of health and the care of the sick on proof of such need.
3. The principle that the care of the public health and the provision of medical service to the sick is primarily a local responsibility.
4. The development of a mechanism for meeting the needs of expansion of preventive medical services with local determination of needs and local control of administration.
5. The extension of medical care for the indigent and the medically indigent with local determination of needs and local control of administration.
6. In the extension of medical services to all the people, the utmost utilization of qualified medical and hospital facilities already established.
7. The continued development of the private practice of medicine, subject to such changes as may be necessary to maintain the quality of medical services and to increase their availability.
8. Expansion of public health and medical services consistent with the American system of democracy.

ANNOUNCEMENTS

The Pediatric Survey sponsored by the American Academy of Pediatrics, endorsed by the House of Delegates of the Nebraska State Medical Association, is now being organized. Dr. E. W. Hancock and Dr. E. S. Wegner of Lincoln, are co-chairmen of the survey. An executive director is to be appointed before long. Physicians throughout the State are requested to lend their full co-operation in an effort to obtain honest and clear data on pediatric facilities in Nebraska.

THE OMAHA MID-WEST CLINICAL SOCIETY

The Fourteenth Annual Assembly of the Omaha Mid-West Clinical Society will be held October 28th to November 1st, inclusive, at Hotel Paxton, Omaha.

The following physicians have accepted invitations to address the assembly:

Dermatology—Donald M. Pillsbury—Philadelphia, Pennsylvania.

Eye, Ear, Nose and Throat—Samuel J. Kopetzky, New York, New York.

Gynecology and Obstetrics—Joe V. Meigs, Boston, Massachusetts.

Medicine—Robert A. Cooke, New York, New York; Perrin H. Long, Baltimore, Maryland.

Neurology—Francis J. Braceland, Rochester, Minnesota.

Orthopedic Surgery—Ralph K. Ghormley, Rochester, Minnesota.

Pediatrics—Arnold L. Gesell, New Haven, Connecticut.

Proctology—Curtice Rosser, Dallas, Texas.

Radiology—Kenneth D. A. Allen, Denver, Colorado.

Surgery—Dallas B. Phemister, Chicago, Illinois.

Secretary-General Manager, American Medical Association—George F. Lull, Chicago, Illinois.

Panel and round table discussions on the following subjects will be presented by members of the Society: Present Concepts of Rheumatic Fever; Syphilis; Blood Substitutes and Parenteral Fluids; Pain in the Neck and Shoulder; New Drugs and Antibiotics; The Acute Abdomen.

A panel discussion on "Changing Concepts in the Field of Endocrinology" will be presented on Friday morning. Nationally known endocrinologists who have devoted their careers to their specialty and who are leaders in this field will make up the panel.

Scientific and technical exhibits, round table discussions and motion pictures will again have their place on the program.

Remember the dates and make your plans now to attend the Mid-West meeting October 28th to November 1st.

MID-SUMMER RADIOLOGICAL CONFERENCE

The Rocky Mountain Radiological Society is resuming its Mid-summer Radiological Conference, which is to be held in Denver, Colorado, August 8-10, 1946. The program committee is arranging an excellent program. The guest speakers are: Dr. John Camp, Dr. William E. Costolow, Dr. Ross Golden, Dr. Dabeny Kerr.

All physicians interested in radiology are urged to attend this conference. The radiologist should plan his vacation to come to Colorado and participate in this excellent program.

INTERNATIONALLY KNOWN SPEAKERS AT COLLEGE OF SURGEONS ASSEMBLY IN DETROIT

Mr. Hamilton Bailey of London, England, will visit Detroit in October to deliver an address at the Eleventh Assembly of the United States Chapter, International College of Surgeons. His subject will be "Impending Death under Anesthesia."

Other eminent speakers and clinicians who will appear at the I. C. of S. clinics, and the Assembly to be held in Detroit's Masonic Temple, October 21-22-23, include:

Dr. Albert Jirasek of Prague; Dr. Francisco Grana of Lima, Peru; Dr. Lyon Appleby, Vancouver, B. C.; Dr. Felipe Carranza of Buenos Aires; Dr. W. Wayne Babcock of Philadelphia; Dr. R. W. McNealy, Chicago; Dr. Wm. C. MacCarty, Rochester, Minn.; Dr. Edwin L. Zander, New Orleans; Dr. Rudolph Nisson, New York; Dr. Max Thorek, Chicago; Dr. H. E. Billig, Los Angeles; Dr. S. W. Harrington, Rochester, Minn., and others.

Copy of program and detailed information including housing arrangements, may be obtained by writing Dr. L. J. Gariepy, Secretary, 16401 Grand River Avenue, Detroit 27, Michigan.

NEWS and VIEWS

Seventy-eight candidates successfully passed recent examinations to practice medicine and surgery in Nebraska, according to an announcement by the state board of examiners in June.

* * *

Heart disease claimed the lives of 2,317 Nebraskans in 1945 according to a recent release by State Health Director W. S. Petty. Deaths from all causes during the year were 12,446 while births totaled 24,292.

There were 1,795 deaths from cancer; 1,337 from cerebral hemorrhage or apoplexy; 849 from nephritis; 347 from diabetes and 463 from pneumonia. Records of the state health department reveal there were 159 suicides during 1945; 207 deaths from automobile accidents and 906 from other accidents.

* * *

THE AVERAGE age at death was 61.6 years which compares with the 1944 average of 61 years and the 1939 average of 59 years.

There were 20.3 births for every 1,000 population in 1945 while deaths were at the rate of 10.38 persons for every 1,000 population.

In 1943 the state had the highest death rate per 1,000 population for the past five years. Then it was 12,956 or 11.01 persons per 1,000 population. The birth rate that year was also the highest, being 25,091 or 21.3 per 1,000 population.

* * *

The hospital survey committee appointed recently by Governor Griswold announced that Dr. Don Alderson of the State Health Department had been chosen to direct the survey.

The committee reported there are now 82 general hospitals in Nebraska with less than 25 beds each, 39 with more than 25 beds, and 34 maternity hospitals.

Dr. W. S. Petty, State Health Director and chairman of the survey committee, said the present committee is not to receive applications for construction of hospitals. The proposed bill provides for a permanent advisory council which would act on applications for hospitals.

Those attending the committee meeting included Mrs. Lorena Hahn, State Board of Control; H. G. Gould, State Planning Commission; R. S. Wycoff, M. D., Lexington; Robert Witham, Lincoln General Hospital; W. J. Coad, Omaha, and Merrill Smith, Nebraska State Medical Association.

BUY
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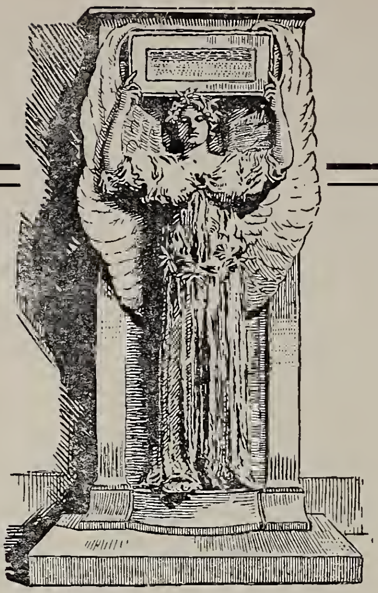


In Memoriam

Albert Lloyd Cooper, M. D.

Scottsbluff

Born 1889
Died February 18, 1946

President Nebraska State Medical Association
1943

NECROLOGY LIST

ANDERSON, AUGUST N.	Shickley	March 3, 1946
BELL, JAMES R.	Fairfield	July 30, 1945
BREUER, MILES JOHN	Los Angeles, Calif. (Lincoln)	October 14, 1945
BRINK, CHESTER ABRAM	Pleasanton	October 21, 1945
BURR, NEIL M., CAPT., M.C.	Guide Rock	October 24, 1944
CONRAD, ALEXANDER A.	Crete	July 9, 1945
DE WOLFE, WM. WALTER	Bennett	April 19, 1944
ELMORE, CHARLES G.	Omaha	May 31, 1945
FAULK, FRED W.	Omaha	February 13, 1944
GEESAMAN, EDGAR S. B.	Ft. Calhoun	July 16, 1945
GOODEN, CHARLES WILLIAM	Edison	December 22, 1945
HIGGINS, RALPH PHILIP	Ansley	February 22, 1946
HILTON, DAVID C.	Lincoln	December 12, 1945
HULL, CHARLES A.	Omaha	May 8, 1945
JONES, WILLIAM YOKUM	Ponca	January 31, 1946
KELLEY, CHAS. JOSEPH	Anselmo	July 5, 1945
KELLOGG, BESSIE ANDRUS V.	Lincoln	March 5, 1946
KINDRED, HOMER L.	Meadow Grove	January 22, 1946
KIRKPATRICK, CHARLES F.	Ashland	February 24, 1946
KOENIG, MARGARET W.	Waterloo	January 10, 1946
LORANCE, BENJAMIN F.	Auburn	December 4, 1945
MACK, ALONZO E.	Glendale, Calif.	November 20, 1945
MAGARET, OSWALD H.	Papillion	December 28, 1945
MASON, CLAUDE WILLIAM	Omaha	August 4, 1945
MEISENBACH, JACOB EDWARD	Staplehurst	December 9, 1945
MORROW, JOHN HENRY	Merna	December 10, 1945
MOYER, RALPH E.	Dunning	December 22, 1943
MULLINS, CHARLES L.	Phoenix, Ariz. (Omaha)	October 28, 1945
NEWMAN, JAMES KAY	Omaha	October 5, 1945
PETERS, ROY ELLIOTT	Wymore	November 29, 1945
PORTER, EPAPHRODITIS J.	Kincaid, Kansas (Utica and Grand Island)	February 7, 1946
REDFIELD, JOHN JOSIAH, 1ST LT., M.C.	North Platte	August 22, 1945
ROLPH, EDWARD L.	Kimball	August 4, 1945
SCHULTZ, HERMAN HENRY	Hastings	January 10, 1946
SECORD, DIXIE	Sumner	December 11, 1945
SIMECEK, JOSEPH	New York, N. Y. (Swanton)	November 2, 1945
SKINNER, A. O.	Lincoln	March 20, 1946
STEENBURG, EDMUND ARTHUR	Aurora	February 1, 1946
STEWART, EARL M.	Eagle	February 14, 1943
STRAND, CLARENCE J.	Ashdown, Ark (Amherst)	October, 1944
TOUVELLE, ALBERT R.	Firth	August 22, 1945
TRIPPLETT, JOHN MARSHALL	Chapman	November 4, 1945
WIGGINS, WILLIAM S.	Exeter	August 19, 1945
YODER, CHARLES ALBERT	Elm Creek	October 9, 1945

WOMAN'S AUXILIARY

President—Mrs. E. S. Wegner
Lincoln, Nebr.
President-elect—Mrs. M. E. Grier
Omaha, Nebr.
Secretary—Mrs. C. F. Ferciot
Lincoln, Nebr.
Treasurer—Mrs. H. O. Bell
York, Nebr.
Publicity Chairman—Mrs. M. E. Grier
4922 Ames Ave., Omaha, Nebr.

THE BULLETIN, official news organ of the Auxiliary is $1.00 per year. It affords valuable information for both State and County Auxiliaries and should be in the hands of every doctor's wife. Mrs. Adolph Sachs, 5211 Underwood Ave., Omaha, State Chairman.

Tuesday, May 7, the members of the Woman's Auxiliary attended a tea at the home of Mrs. W. W. Carveth, 3003 South 31st, Lincoln, Nebraska.

Wednesday, May 8th, Executive Board meeting was held in Hotel Cornhusker. Mrs. A. D. Brown, Central City, Nebr., State President of the Woman's Auxiliary to the Nebraska State Medical Association, presiding, called the meeting to order.

Secretary's and Treasurer's reports were read and approved.

Reports of Standing Committees were given.

It was proposed and approved that the allowance for the President attending the annual National Convention of the Woman's Auxiliary be increased from $35 to $50. There being no further business, meeting adjourned.

Luncheon held at the Lincoln Hotel was well attended. Spring flowers decorated the tables. Immediately following luncheon, General Business Meeting of Woman's Auxiliary was held. Mrs. Brown, State President of Woman's Auxiliary to the Nebraska State Medical Association presided and outlined activities of Auxiliary during previous year.

Mrs. E. E. Farnsworth, Secretary, read minutes of the previous meeting which were approved. Mrs. Weidman, President of the Woman's Auxiliary of Lancaster County presented the officers and Committee Chairmen.

Dr. A. J. Offerman of Omaha presented a very interesting discussion of The Nebraska Surgical Plan.

At this time the report of action of the Executive Board was presented and approved by vote.

Reports of Standing Committees, with reports of the County Auxiliary Presidents were read.

Nominating Committee presented new officers which were approved by vote.

President—Mrs. E. S. Wegner, Lincoln.
President-elect—Mrs M. E. Grier, Omaha.
First Vice Pres.—Mrs. G. H. De May, Shelton.
Second Vice Pres.—Mrs. H. S. Morgan, Lincoln.
Treasurer—Mrs. H. O. Bell, York.

Mrs. E. S. Wegner appointed Mrs. Ferciot as her secretary.

Meeting adjourned.

Brief Post Convention Executive Session was presided over by Mrs. E. S. Wegner, new President who gave an outline of work to be done in the following year.

Board of Directors were to meet in September in Lincoln, Nebraska. Meeting adjourned.

Resolutions 10, 1946

Be It Resolved, That We, the members of the Woman's Auxiliary to the Nebraska State Medical Association, assembled in Lincoln in annual meeting express our gratitude to:

1. The president and officers of the State Medical Auxiliary for a very successful and profitable year.
2. The Lancaster County Auxiliary for its gracious hospitality during the convention.
3. The officers, delegates, and members of the State Medical Association and the Lancaster County Medical Association for their many courtesies, including their financial assistance.
4. Mrs. Earl Wiedman, president of the Lancaster County Auxiliary and general chairman of convention arrangements, and her assistance for their efforts in our behalf.
5. Mrs. W. W. Carveth, whose home was so charming a setting for the Auxiliary tea.
6. And to the management of the Hotel Cornhusker which served as Auxiliary headquarters.
7. And be it resolved that we, the members of the Auxiliary to the Nebraska State Medical Association, pledge our support to our incoming president.
8. Suitable expression of sorrow and sympathy be extended to the family of the late Mrs. George Covey, from the members of the Auxiliary.
9. And be it further resolved these resolutions

be printed in the Journal of the State Medical Association and spread upon our own minutes.

Also, that the State Auxiliary Secretary be instructed to send letters to those mentioned in this report.

Respectfully submitted,

OLIVE GRIER.

The last meeting of the Woman's Auxiliary to the Omaha-Douglas County Medical Society was a luncheon held Tuesday, May 14, at the home of Mrs. Maurice Grier. About 55 members attended. A delicious luncheon was served by the Courtesy Committee.

The president announced that there were 122 paid members and 40 honorary members.

Mrs. Nilsson introduced the new president, Mrs. Herbert F. Gerald, and Mrs. Maurice Grier who is president-elect of the State Auxiliary.

The new officers for the year 1946-47 were then voted in. They are: Mrs. Herbert Gerald, president; Mrs. George Robertson, president-elect; Mrs. John Kennedy, vice president; Mrs. J. A. Borghoff, secretary, and Mrs. James Donelan, treasurer.

Marjorie H. Muehlig,
Publicity Chairman.

INSTALLATION OF PRESIDENT

May 6, 1946

DR. McMARTIN: Ladies and Gentlemen: Allow me to introduce to you your new President, Dr. Earle G. Johnson of Grand Island.

(Assembly stands and tenders applause).

Dr. Johnson, there are a few customs that the retiring President is called upon to put into effect in this ceremony. First, this morning they started me out with a President's badge. Now I have to release that President's badge, and I have the privilege of pinning on you your badge as President of the Nebraska State Medical Association.

There is another custom in this Association. The outgoing President presents to the new President a gavel. It is not known why you are presented with the gavel. You're never called upon to preside at any meeting except possibly some dinner meeting such as I might preside over tonight, and I don't think there will be any need of the gavel.

I was not able to do exactly what I wanted to do. You will recall that I was presented with a black walnut gavel made from wood taken from Dr. Rogers' farm. I had a man search around Grand Island to see if I could get a piece of hackberry or a piece of cottonwood that might make a gavel to satisfy all members who were fighting as to which should be the Nebraska tree. Not able to do that, I had to compromise on a rosewood gavel. This was especially made and is definitely inscribed as to why you received it, who presented it to you, and so as a symbol of your office I am glad to present to you this gavel.

(Makes presentation.)

PRESIDENT JOHNSON: I would like to say, as my first official act, that many illustrious men have filled this high office but no man, regardless of his individual ability, has filled it with more heart and energy, and self-sacrifice, than has Dr. Charles McMartin. I wish that I had words to express the extent of my respect and admiration for this capable colleague. I have watched him go through quietly the work that he has spoken of as being done largely by the Planning Committee. I would like to pay tribute to our outgoing President by asking every one in the Assembly Hall to stand and honor ourselves by saluting Professor Charles McMartin.

(Assembly stands and tenders applause).

INSTALLATION ADDRESS

I approach the responsibilities of this office with sincere feelings of humility and gratitude; I feel humble because of the long list of fine, self-sacrificing and illustrious physicians who have preceded me; gratitude and pride that you have chosen another Hall County man to be your leader. At this point please let me make this plea and definite promise. First, recognizing that your president is only the spokesman for our organization, I want very sincerely to ask your advice and active participation in all the problems of the association now more urgently than ever before in our history. For the younger men now returning from the strain and physical dangers of services with the armed forces, we have done the best we had time and energy to do. That we have failed to do all that you and we wished to do is history. But we tried. Please don't be too critical; lend us your hands, hearts, brains; don't expect too much of the old men, worn by the strain and responsibilities of trying to fill three or four places. Be patient for the sake of the future of our profession, for the practice of the healing art as we have known it, and above all for the sake of our people, our patients, our new mothers and babies. You must take up this work from the tired hands of the now gray haired old men who have carried this burden.

Our new constitution puts you returning veterans in command. We are proud of you. Statistics show the honor you have brought to our profession. This organization is now yours. Take it and continue our fight for raising the standards of practitioners of the healing art; activate all measures that will aid preventive medicine; design research which will help cure those stricken with now supposedly incurable diseases. Take little thought of the future except to remember that never has a good piece of work gone unrecognized or unrewarded.

Much time and toil will be required to bring about aleviation and prevention of sickness arising in ordinary walks of life, in industry. Diligent study and investigation will be needed to cope with diseases acquired in the tropics or at the poles, and wherever else our fellowmen have gone in the pursuit of progress, happiness, freedom of worship, and liberty. We are confident that we have the brains and ability in the medical profession to produce a plan that will provide adequate medical care for all people regardless of class, creed, or color, at far less cost to the individual laborer and lessen the already unbelievable drain on public treasury than any plan dreamed up by the long haired men and short haired women skillfully and convincingly worded in the vote-catching bill authored by Senator Wagner of N. Y., Senator Murray of Montana, and Representative Dingell of Michigan. One of our good senators from Nebraska, although sincerely and actively opposed to any type of political medicine, will bet a suit of clothes that this bill will pass our Senate. Our four representatives equally sincere and actively opposed to any type of political or state medicine, are sure that the Wagner-Murray-Dingell Bill will not pass the house.

Let all members of the healing art and allied professions know of this real threat, this threat not to our profession alone, but also to the health and happiness and financial resources of every individual of our country be he laborer of any income, salaried employee, pauper, colored, or white. The healing art as we have known it recognizes no creed, color, or station in life as a bar to, or indication for, adequate medical care.

Now, finally, please each and every one of you know and carry home to your county societies the fact that the officers of your organization will be available at any time subject to your convenience. At your invitation they will consider it a privilege to come to your meetings and try to help in your deliberations. There is much, much to be done, and perhaps less time than many think in which to do this work, to the end that our country may still continue to be the medical center of the world, and to justify the only reason for the existence of our profession; i.e., that each individual may have complete freedom in the pursuit of health, happiness, and worship.

REPORT OF PROGRAM COMMITTEE

J. E. M. Thomson, M.D., Lincoln

The purpose of an annual assemblage of a medical organization such as the Nebraska State Medical Association is three-fold. First—to carry on through a representative group (the House of Delegates) the business, establish the policy and ethics and correlate the activities of the organization. Second—disseminate to the membership, scientific and clinical data pertinent to the better care of patients through lectures, audio-visual methods (motion pictures and illustrations), scientific exhibits, demonstrations and actual teaching periods. Third — promote social intercourse whereby mutual fellowship, good will and understanding can be accomplished among the doctors of our commonwealth.

The national emergency of the past few years has disrupted the full purpose of our association. It has necessarily limited its activities to the many business and economic problems that have confronted the profession during this period. Your program committee has each year with expectation of fulfillment, prepared a well-rounded scientific program only to see their efforts come to naught because of the rightfully imposed government limitations on travel and assemblies.

It was indeed a satisfaction to realize that with the cessation of international hostilities, we could embark on a program emphasizing peacetime medical and surgical problems. We rejoice in welcoming home to civil practice the many men of the profession who had given of themselves for the cause of war. We recognize they have contributed generously and heroically to the war emergency and to the great advances that have been made in medicine during this emergency. Many of the lessons learned from the war can be applied to civil life. However we recognize that we are now confronted by a distinct challenge, that of giving now refresher material dealing with the problems of medicine from a civil approach—in that now you are treating men, women and children of all ages subject to all the physical and mental catastrophes and diseases of the ordinary walks of life.

With this in mind, you view our efforts on the first day of this meeting in dealing with basic problems such as Pathology, Cancer, Syphilis and Abdominal Disturbances. On the second day, the Thyroid Problem and the Spleen are covered as well as a review of Pre- and Post-Operative Management of the surgical patient. On the last day the Civilian Problem of the Veteran and his disabilities is given a prominent place in that these many young men and women who have given their best for our protection are once more in large numbers rehabilitating themselves to civilian society and must be given our special attention. Lastly the problems of pregnancy and labor are dealt with. We feel this program should be of marked value not only to the returning medical veteran but also to every man practicing in the state.

So much for the present. Let us now look into the future. Three questions arise: How can the program of the future be improved? How can it be made of greater value to the greatest number? What does the membership want in the way of a program? We will welcome your help in answering these questions. We can look into the experience of similar organizations for possible answers.

The great medical associations in their assemblages have recognized that it is impossible to formulate a single program that will prove attractive to everybody. In other words a distinctly medical discussion might not be of particular interest to a surgeon, or a technical essay on some specialty might be attractive only to a specific group, while another would shy away from it. Yet each of the subjects would be pertinent to that group of doctors who were particularly interested.

Therefore there has been a tendency in many medical associations whose membership embraces all the specialties and general practitioners to divide at least a part of their meeting into sections—one of medicine, one of surgery and one of specialties. Each of these sections will meet at the same time, thereby offering a more diversified program that will attract a larger combined interest. Of course it would mean a smaller attendance in each lecture room, but should yield a larger combined attendance by giving more of the members an opportunity to see and hear what he thought would be of most value.

Among the other factors that your program committee has considered and has already tried to bring into the present meeting is making the scientific presentations of teaching value rather than to allow the essayist to exploit his own prowess and pet procedures that are of value only to a specialist in his particular line of work. The value of a true teaching program lies in the possibility of a small group with whom the professor can discuss a problem that will allow his listeners to take home into their daily practice the gems of his experience. It is possible to do this when there are small sectional meetings and one can have closer contact with the group he is teaching.

We are considering and contemplating for your next meeting, carrying into effect some of these features. Perhaps give a morning to a general scientific assemblage, then in the afternoon forming two or more sectional meetings where outstanding authorities on certain phases of the healing art may discuss informally or formally subjects that should stimulate your interest. Then allow you to question and interpret the presentation in such a way that it will increase your understanding of the subject and will aid in the care, health and welfare of your community.

We urge your suggestions and help in evolving any type of scientific program that will prove of interest. The Association needs the response and active participation of every member. The advent of new blood into the organization and the stimulation of old should give great impetus toward our progress in the future. We cannot stand still and rest on our laurels. We must always move forward. Therefore in the development of a well-rounded program, the advice, ideas and criticism of all—and particularly our returned medical veterans—will be of inestimable help.

Your program committee is most appreciative of your response to our efforts evidenced by your early registration and attendance, and we hope that the scientific presentations will be of help to you and that the social and entertainment features will promote friendships and associations of a lasting nature. It was John Lyly in 1591, who wrote, "Time draweth wrinkles in a fair face but addeth fresh color to a fast friend which neither heat nor cold, nor misery, nor place, nor destiny can alter or diminish." Such are the qualities of friendly relationships that make for a unified endeavor and success in the Nebraska State Medical Association.

MINUTES OF BOARD OF COUNCILORS

May 7, 1946

The first meeting of the Board of Councilors was called to order by Dr. Chas. W. Way, Secretary, acting in the absence of the President, Dr. Clayton Andrews, at 5:30 p.m., in the Lancaster Room, Hotel Cornhusker, Lincoln, Nebraska. The following members were present: Drs. G. W. Pugsley, W. R. Neumarker, J. B. Redfield, W. E. Shook, G. E. Peters, C. W. Way, H. S. Andrews, A. A. Ashby, M. O. Arnold and Warren Y. Thompson. Dr. Clayton Andrews was seated after the meeting had been called to order and later took the chair as President.

Also present at the meeting were Drs. Rudolph F. Decker, K. S. J. Hohlen, R. B. Adams, Floyd Rogers, A. J. Offerman, C. H. Sheets, H. M. Jahr, and Mr. M. C. Smith.

A motion was made by Dr. H. S. Andrews that the minutes of the last meeting be adopted as published. The motion was seconded by Dr. W. E. Shook and carried.

Dr. C. W. Way stated that communications had been received from the Omaha-Douglas County Medical Society, the Gage County Medical Society, and the Adams County Medical Society, recommending Dr. W. F. Callafas of Omaha, Dr. F. W. Buckley of Beatrice, and Dr. C. R. Laird, Ingleside, respectively, for honorary memberships in the Nebraska State Medical Association.

A motion was made by Dr. H. S. Andrews that Drs. W. F. Callafas, F. W. Buckley, and C. R. Laird, be recommended to the House of Delegates for Honorary memberships. The motion was seconded by Dr. W. R. Neumarker and carried.

Nominations for a member of the Medical-Legal Advice Committee were called for by the chair and Dr. R. W. Fouts was nominated.

A motion was made by Dr. W. R. Neumarker that the nominations be closed and that the Council cast the unanimous ballot for Dr. R. W. Fouts as the member of the Medical-Legal Advice Committee. The motion was seconded by Dr. Warren Thompson and carried.

A motion was made by Dr. G. W. Pugsley that Dr. J. D. McCarthy be reelected as a member of the Board of Trustees and that the Council cast the unanimous ballot for Dr. McCarthy as trustee. The motion was seconded by Dr. M. O. Arnold and carried.

The supplemental report of the Planning Committee, as referred to the Council by the House of Delegates, was read by Dr. Floyd Rogers.

Informal discussion followed.

A motion was made by Dr. G. E. Peters that a correction to the printed fee schedule be made and that under 24a we add "General Survey Examination—$7.50." The motion was seconded by Dr. M. O. Arnold and carried.

A motion was made by Dr. J. B. Redfield that the report of the Planning Committee be accepted and that we recommend its adoption to the House of Delegates. The motion was seconded by Dr. G. W. Pugsley and carried.

The report of President McMartin on the Conference of Presidents, referred to the attention of the Council by the House of Delegates, was reviewed.

A motion was made that the report be accepted and its adoption recommended to the House of Delegates. The motion was seconded and carried.

A motion was made by Dr. G. E. Peters that we recommend to the House of Delegates that the restrictions stated in the previous motion which authorized the President to attend the Conference of Presidents be removed and that he be allowed to go to these meetings as a full-fledged member with power to act. The motion was seconded and carried.

Dr. C. H. Sheets was granted permission of the floor and as chairman of the Insurance Committee presented a group plan of health and accident insurance for the Council's consideration.

Two resolutions relative to the EMIC program, referred to the Council by the House of Delegates, were discussed.

A motion was made by Dr. J. B. Redfield that we accept the resolutions and recommend their adoption to the House of Delegates. The motion was seconded by Dr. G. W. Pugsley, and a suggestion was made that the motion be amended so that the date of the termination of the contract be "one year after official cessation of the war" instead of July 1, 1946. Dr. Redfield accepted the amendment and the motion, as amended, reads as follows:

"Motion made that we accept the resolutions and recommend their adoption to the House of Delegates with the provision that the termination of the contract be changed to one year after official cessation of the war instead of July 1, 1946." The motion carried.

A motion was made to adjourn. Seconded and carried.

May 8, 1946

The board of Councilors held their second session in the Lancaster Room, Hotel Cornhusker, Lincoln, Nebraska, immediately upon adjournment of the House of Delegates.

The following members were present: Drs. G. W. Pugsley, A. A. Ashby, W. E. Shook, G. E. Peters, H. S. Andrews, M. O. Arnold, C. W. Way, Clayton Andrews and J. B. Redfield.

Also present were Drs. R. W. Fouts, R. B. Adams, Rudolph F. Decker, and Mr. M. C. Smith.

The minutes of the first session were approved as read before the House of Delegates.

Dr. Andrews called attention to the resolution referred to the Council by the House of Delegates.

A motion was made by Dr. J. B. Redfield that the Nebraska State Medical Association appropriate $1,000.00 for the prosecution of any M.D., violating L. B. No. 40, or any other section of the Medical Practice Act, of the statutes of the State of Nebraska and that this resolution be presented to the Board of Trustees.

The motion was seconded by Dr. G. W. Pugsley and carried.

The group health and accident program given to the Council for consideration by Dr. C. H. Sheets, Chairman of the Insurance Committee, was again discussed.

A motion was made by Dr. G. E. Peters that the Council approve of such type of insurance plan as presented without giving recommendation to any certain company. The motion was seconded by Dr. A. A. Ashby, and carried.

The Council adjourned to meet again after the last session of the House of Delegates, Thursday, May 9th.

May 9, 1946

The third and final session of the Board of Councilors was called to order by Dr. Clayton Andrews, President of the Council, immediately upon adjournment of the House of Delegates. The meeting was again held in the Lancaster Room, Hotel Cornhusker, Lincoln, and the following members were present: Drs. C. W. Way, H. S. Andrews, J. B. Redfield, O. W. French, M. O. Arnold, G. W. Pugsley, W. R. Neumarker, W. E. Shook, G. E. Peters, Warren Y. Thompson, Clayton Andrews, A. A. Ashby.

Also present were Drs. Rudolph F. Decker, R. B. Adams, and H. M. Jahr.

The minutes of the second session were approved as read before the House of Delegates.

As an expression of tribute to a former member of the Council and member of the Nebraska State Medical Association, Dr. A. L. Cooper, Scottsbluff, Nebraska, the Council was asked to stand for a few minutes. The President of the Council was then instructed to go before the general session and ask for a similar expression of respect and honor to the memory of the late Dr. Cooper.

A motion was made to adjourn. The motion was seconded and carried.

MINUTES OF HOUSE OF DELEGATES

May 7, 1946

The first session of the House of Delegates was held in the Ballroom, Hotel Cornhusker, Lincoln, Nebraska, May 7, 1946. Thirty-eight members were present.

The meeting was called to order by Dr. Rudolph F. Decker, Speaker of the House of Delegates at 12:30 p.m.

The chair called for the report of the Credentials Committee. Dr. R. B. Adams read the following report:

"The Credentials Committee met and examined the credentials as sent in by the different county societies and recommends to the House of Delegates that the list made from the credentials be accepted as the official roll call of the House of Delegates."

Signed by
R. B. Adams,
H. O. Bell,
Geo. B. Dent.

A motion was made that the report of the Credentials Committee be accepted. The motion was seconded and carried.

The chair called for the reading of the minutes of the last meeting.

A motion was made that the reading of the minutes be dispensed with and that they be approved as published. Seconded and carried.

The chair called for the report of the Board of Trustees. In the absence of the chairman, Dr. Adams announced that the report, as presented to the Council, had been published.

The chair called for the report of the Council. This report was read by Dr. Clayton Andrews, President of the Council.

The chair called the attention of the house to the fact that this report also embodied the proposed budget for 1947 and the budget was read.

A motion was made that the report of the Council be approved. The motion was seconded and carried.

The chair called for committee reports.

Dr. Floyd Rogers read the supplemental report of the Planning Committee. This report was referred to the Council.

The chair called for special committee reports but none was presented to the House.

A short recess was called for the purpose of selecting a Nominating Committee.

The meeting was again called to order by the Speaker of the House.

The delegates from each district were called upon to name their selections for their districts. These selections were as follows:

1st District—H. H. Davis, Omaha
2nd District—E. W. Hancock, Lincoln
3rd District—H. D. Runty, DeWitt
4th District—Walter Benthack, Wayne
5th District—G. W. Sullivan, St. Edward
6th District—W. W. Noyes, Ceresco
7th District—Joe Bixby, Geneva
8th District—S. A. Swenson, Hay Springs
9th District—E. J. Smith, Burwell
10th District—Theo. Peterson, Holdrege
11th District—E. A. Harvey, Ogallala
12th District—H. A. Blackstone, Bridgeport

A motion was made and seconded that these men be selected as the Nominating Committee. The motion carried.

The chair made the appointment of Dr. H. H. Davis as temporary chairman of the Nominating Committee.

Unfinished business was called for by the chair.

Dr. A. J. Offerman read the following resolution:

Subject: Emergency Maternal Infant Program

WHEREAS, it has been authoritatively and repeatedly announced by the Children's Bureau of the Department of Labor that the E.M.I.C. Program would be discontinued six months after the termination of the war.

WHEREAS, we feel that the object of this program has been attained, viz. to sustain "the morale of the soldier" and it has been accomplished through the excellent and whole hearted co-operation of the Medical Profession; and

WHEREAS, the need of this emergency measure no longer exists; and

WHEREAS, there is a definite move to continue this program and provide for its application to the people of the entire United States, with widened scope and expanded power, centralized in the Children's Bureau of the Department of Labor, under S. 1318, the Pepper bill, the super E.M.I.C. bill, and

WHEREAS, the continuance of such a program will be in reality regimentation and state socialized medicine; therefore, be it

RESOLVED, that the Nebraska State Medical Association recommends that the Medical Profession in this State discontinue participation in the Emergency Maternal Infant Care Program. That members not accept new commitments under the E.M.I.C. Program after July 1, 1946.

O. J. CAMERON,
LOWELL DUNN,
W. J. McMARTIN,
C. F. MOON,
F. C. HILL,
A. J. OFFERMAN,
H. H. DAVIS, Chairman.

This resolution was referred to the Council.

The chair read the following resolution from the Lincoln County Medical Society:

Subject: Emergency Maternal Infant Care Program

WHEREAS, it has been authoritatively and repeatedly announced by the Children's Bureau of the Department of Labor that the E.M.I.C. Program would be discontinued six months after the termination of the war.

WHEREAS, we feel that the object of this program has been attained, viz. to sustain "the morale of the soldier" and it has been accomplished through the excellent and whole hearted cooperation of the Medical Profession; and

WHEREAS, the need of this emergency measure no longer exists; and

WHEREAS, there is a definite move to continue this program and provide for its application to the people of the entire United States, with widened scope and expanded power, centralized in the Children's Bureau of the Department of Labor, under S. 1318, the Pepper bill, the super E.M.I.C. bill, and

WHEREAS, the continuance of such a program will be in reality regimentation and state socialized medicine; therefore be it

RESOLVED, that the society recommends that the Medical Profession in this area discontinue participation in the Emergency Maternal Infant Care Program and that members not accept new commitments under the E.M.I.C. Program after July 1, 1946.

RESOLVED, that a copy of this resolution be forwarded to the House of Delegates of the Nebraska State Medical Association for proper action.

LINCOLN COUNTY MEDICAL SOCIETY,
Harriet G. McGraw, President,
A. J. Callaghan, Secretary.

This resolution was referred to the Council in the usual manner.

The following resolution from the Five County Medical Society was read by the chair:

WHEREAS, in the annual sessions of the American Medical Association there is not a section, in which the professional and economic problems of the general practitioner may be discussed, and

WHEREAS, the general practitioner attending the annual sessions thinks his interests are not being given sufficient attention as a result of the above mentioned condition, therefore be it

RESOLVED, that the Five County Medical Society in regular session assembled at Wayne, Nebraska, this 13th day of December, 1945, urges that the delegates from the Nebraska State Medical Association utilize every honorable means available at the next session of the A.M.A. for a formation of a section for the general practitioner.

F. G. DEWEY, M.D., Secretary.

The resolution was referred to the Council.

Dr. K. S. J. Hohlen, Delegate to the A.M.A., made the announcement that a section for the general practitioner has already been created.

Dr. H. D. Runty was given the privilege of the floor, and presented the name of Dr. Fred W. Buckley for honorary membership in the Nebraska State Medical Association. The matter was referred to the Council for action.

New business was called for by the chair.

Dr. Charles McMartin read the report on the Presidents' Conference held in Chicago.

This report was referred to the Council.

Dr. Adams asked for the recommendation of the House relative to new members now on probation in the Omaha-Douglas County Medical society; also, for those older members who have been away and recently returned but not yet in practice, as to their eligibility to the Annual Assembly.

A motion was made that the privileges of the 1946 Annual Assembly of the Nebraska State Medical Association be extended to the probate members of any county society in the state; also, that this privilege be extended to the recently returned veterans of World War No. 2.

The motion was seconded and carried.

Dr. Adams announced that all future meetings of the House will be held in the Lancaster Room as originally scheduled. Also, that the Nominating Committee would hold their meetings in the Lancaster Room.

Dr. A. J. Offerman made the announcement relative to the Nebraska Medical Service booklet of instruction and fee schedule that in-hospital medical care is not a part of the contract but that as soon as the state insurance commissioner approves it it will be.

The House stood adjourned until 8 o'clock, Wednesday, May 8, 1946.

May 8, 1946

The second session of the House of Delegates was called to order by Rudolph F. Decker, Speaker of the House of Delegates, at 8:15 a.m., in the Lancaster Room, Hotel Cornhusker, Lincoln, Nebraska. Twenty-eight members were present.

Dr. R. B. Adams read the minutes of the first session and they were approved as read.

The report of the Council was read by Dr. C. W. Way, Secretary of the Council.

General discussion on several sections of the report followed.

The chair suggested as a mode of procedure that the House take the various recommendations under discussion which were embodied in the Council report and either approve, or disapprove, each one separately.

The first section to be considered was the recommendation of the Council that Dr. W. F. Callafas, Omaha, Dr. F. W. Buckley, Beatrice, and Dr. C. R. Laird, Ingleside, be made honorary members of the Nebraska State Medical Association.

A motion was made that the recommendation for honorary membership of these three doctors be accepted. The motion was seconded and carried.

The recommendations of the Council that an addition be made to the printed fee schedule compiled by the Planning Committee and that the Supplemental Report of this committee be recommended to the House for adoption was next considered.

A motion was made that the recommendations of the Council relative to the Supplemental Report of the Planning Committee be approved by the House of Delegates. The motion was seconded and carried.

The recommendation of the Council that the restrictions stated in the resolution adopted at the meeting of the House of Delegates in 1945 which authorized the President to attend the Conference of Presidents be removed and that he be allowed to go to these meetings as a full-fledged member with power to act, was next considered by the House.

A motion was made and seconded that this recommendation be disapproved. The motion carried.

The section of the Council's report relative to the EMIC program and the provision changing the wording of the resolution presented by two county medical societies to read "one year after official cessation of the war," instead of "July 1, 1946," was discussed.

A motion was made that the House disapprove the recommendation of the Board of Councilors to change the wording in this paragraph of the resolutions. The motion was seconded and carried.

A motion was made that the House approve the resolutions as originally presented by the Omaha-Douglas and Lincoln County Medical Societies. The motion was seconded and carried.

A motion was made that the report of the Council, as amended by the House of Delegates during this session, be adopted. The motion was seconded and carried.

The chair called for unfinished business.

The question of the amount of annual dues was raised from the floor and the chair read the following excerpt from the By-Laws:

"Chapter XII—Assessments and Expenditures

Section 1—An assessment of $15.00 per capita on the membership of the component societies is hereby made the annual dues of this association for the duration of the war and one year thereafter, except as otherwise provided . . . ."

New business was called for by the chair.

Dr. A. J. Offerman read the following resolution:

WHEREAS, charges were made before the Senate reference committee of the 1945 session of the Nebraska Legislature that licensed practitioners of medicine were collaborating with members of other professions of the healing art to circumvent the enforcement of the law as proscribed in L.B. No. 40 of the 1943 legislative session, and

WHEREAS, the Nebraska State Medical Association through its Committee on Medical Economics sponsored and supported the maintenance of this bill, and

WHEREAS, there now appears to be adequate evidence in the files of the Nebraska State Department of Health to support the contention mentioned in paragraph 1 of this resolution,

THEREFORE BE IT RESOLVED, that the House of Delegates of the Nebraska State Medical Association request and urge the Director of the Bureau of Examining Boards to prosecute to the limit any member of the medical profession participating in such practices, or any other violation of the Nebraska Medical Practice Act, and

BE IT FURTHER RESOLVED, that the sum of one thousand dollars ($1,000.00) be appropriated from the funds of the Nebraska State Medical Association to assist in carrying out the purposes of this resolution. This fund is to be utilized only in the event funds are not available for said purpose.

A motion was made that the House adopt the resolution with the exception of the last paragraph which is referred to the Council for action. The motion was seconded and carried.

Dr. Charles Moon presented the following proposed amendments to the By-Laws:

To the House of Delegates in Annual Session, May 7, 1946:

It is recommended that Sections 12 and 13 of Chapter X of the By-Laws of the Nebraska State Medical Association, pertaining to the Committee on Medical and Public Health Education, be repealed for the following reasons:

1. The committee has not functioned as provided for in the By-Laws, and in talking the matter over with the chairman and members of the committee, it would seem that they are dubious about a committee of this kind being able to carry out the provisions of Sections 12 and 13.

2. Meetings of the members of this committee, the chairmen of the various scientific committees, and the Deans of Creighton and University of Nebraska Medical Schools, as provided for in these Sections, are difficult to arrange.

3. If chairmen of the scientific committees are carefully chosen and the responsibility for the success of the respective committees placed on the chairman, each committee, having problems peculiar to itself, a coordinating committee would not be necessary.

If it is believed by the House of Delegates that this committee should be retained, it is suggested that provisions be made in the By-Laws for the naming of a chairman.

Respectfully submitted,
J. D. McCarthy, M.D.

To the House of Delegates in Annual Session, May 7, 1946:

It is recommended that the third sentence of Section 3, Chapter X of the By-Laws of the Nebraska State Medical Association, which reads, "It shall keep in touch with professional and public opinion in all matters relating to the economic status of the medical profession" be amended to read "It shall keep in touch with professional and public opinion in all matters pertaining to public health as it relates to the medical profession and the laity."

Respectfully submitted,
J. D. McCarthy, M.D.

The chair ruled that these two proposed amendments will lay over until the next session of the House of Delegates.

A motion was made by Dr. Charles Moon that the president be authorized to create a committee to study and revise the Constitution and By-Laws and present their report to the next annual session of the House of Delegates. The motion was seconded and carried.

Dr. R. B. Adams discussed some excerpts sent to the headquarters office from the Policy and Procedure Manual of the Labor Branch, Production and Marketing Administration, United States, Department of Agriculture, for the operation of certain phases of the Health Program to be administered by the Midwestern Agricultural Workers' Health Association, and then called on Dr. C. W. Sheets to informally discuss this program.

A motion was made that the Nebraska State Medical Association be opposed to any mass clinics of any federal agency of any kind on any other basis than the fee schedule as adopted by the House of Delegates. The motion was seconded and carried.

Dr. Adams read a communication from the United Service Organizations, Inc., in which they asked for representation on the program of the

Annual Assembly and to which Dr. Adams replied that the program was already filled and in the hands of the printer.

Dr. R. B. Adams made the announcement that the Nominating Committee would meet at 11:00 and 4:00 in the Lancaster Room to receive nominations; also, that the Council would meet immediately after adjournment of the House.

The House stood adjourned until 8 o'clock, Thursday, May 9, 1946.

May 9, 1946

The third and final session of the House of Delegates was called to order at 8:15 a.m., May 9, 1946, in the Lancaster Room, Hotel Cornhusker, Lincoln, Nebraska. Registration showed 27 members present.

The minutes of the second session were read by Dr. R. B. Adams and approved as read.

Dr. Herbert H. Davis read the following report of the Nominating Committee:

The Committee on Nominations has met in accordance with instructions and now reports its nominations as follows:

President-Elect—G. E. Charlton, Norfolk
Vice-Presidents—W. R. Neumarker, Columbus, and H. H. Humphrey, Daykin
Councilors:
5th District—W. R. Neumarker, Columbus
6th District—C. W. Way, Wahoo
7th District—A. A. Ashby, Fairmont
8th District—O. W. French, O'Neill
Delegate to A.M.A.—J. D. McCarthy, Omaha
Alternate Delegate to A.M.A.—H. S. Morgan, Lincoln
Committee on Journal and Publication—F. W. Niehaus, Omaha
Delegate to North Central Conference—Floyd L. Rogers, Lincoln

Respectfully submitted,
Herbert H. Davis, Chm.,
Committee on Nominations
E. W. Hancock, Acting Secy.

A motion was made and seconded that the report of the Nominating Committee be accepted. The motion carried.

The chair called for nominations from the floor for each office in turn and in each case there was none proposed, so motions were made that inasmuch as there was only one candidate for each of the offices, that the secretary be instructed to cast the unanimous ballot for the nominees. This motion in each case was seconded and carried.

The Secretary cast the unanimous ballot for the nominees and the following became the newly elected officers of the Nebraska State Medical Association:

President-Elect—G. E. Charlton, Norfolk
Vice-Presidents—W. R. Neumarker, Columbus, and H. H. Humphrey, Daykin
Councilors:
5th District—W. R. Neumarker, Columbus
6th District—C. W. Way, Wahoo
7th District—A. A. Ashby, Fremont
8th District—O. W. French, O'Neill
Delegate to A.M.A.—J. D. McCarthy, Omaha
Alternate Delegate to A.M.A.—H. S. Morgan, Lincoln
Committee on Journal and Publication—F. W. Niehaus, Omaha
Delegate to North Central Conference — Floyd Rogers, Lincoln

The chair appointed Drs. Lucien Stark and W. E. Wright to present the new President-Elect to the House of Delegates.

A motion was made and seconded that the appointment of Dr. C. W. Way as a member of the Committee on Medical and Public Health Education be approved. The motion was seconded and carried.

Drs. Stark and Wright presented Dr. G. E. Charlton, President-Elect to the House.

DR. CHARLTON: "I can not tell you how much I appreciate this honor—the highest honor of medical men. With this honor come many responsibilities and I want to ask for your cooperation, and to again tell you I appreciate it very much."

The report of the Council was read by Dr. C. W. Way, Secretary of the Council.

The chair ruled that the mode of procedure would be to approve the recommendations of the Council separately and the resolution recommended for adoption relative to appropriating $1,000.00 for the prosecution of any M.D. violating L.B. No. 40 or any other section of the Medical Practice Act and presenting the resolution to the Board of Trustees, was first considered.

A motion was made and seconded that this recommendation of the Council be approved. The motion carried.

The recommendation of the Council that "approval be given to such group plans of hospital and accident insurance as presented without giving recommendation to any certain company," was next discussed.

A motion was made that this recommendation be accepted. The motion was seconded and carried.

A motion was made that the report of the Council in its entirety be approved. The motion was seconded and carried.

The chair called for unfinished business.

The chair read the proposed amendment repealing Sections 12 and 13 of Chapter X of the By-Laws of the Nebraska State Medical Association which had been introduced at the last previous meeting of the House and had laid on the table for one day, in accordance with the procedure for amendments as set forth in the Constitution and By-Laws, and stated that the question was on the adoption of the amendment.

A motion was made and seconded that this proposed amendment be adopted. A two-thirds vote of the delegates registered having been cast in favor of the adoption of the amendment, the chair declared the motion carried and the amendment adopted.

The chair read the proposed amendment to Section 3, Chapter X of the By-Laws, which had been introduced at the last previous meeting of the House and laid on the table for one day, in accordance with the procedure for amendments as set forth in the Constitution and By-Laws.

A motion was made to amend the proposed amendment by changing the name of the committee found in Section 2 and Section 3 from "Committee on Medical Economics" to "Committee on Public Relations." This motion was seconded and a vote was called for by the chair which tallied 11 yes, 7 no votes. The chair ruled the motion carried.

The chair then stated that the amendment to be considered was changing the name found in Sections 2 and 3 of Chapter X from "Committee on Medical Economics" to "Committee on Public Relations" and changing the third sentence of Section 3, Chapter X of the By-Laws, which now reads, "It shall keep in touch with professional and public opinion in all matters relating to the economic status of the medical profession" to read, "It shall keep in touch with professional and public opinion in all matters pertaining to public health as it relates to the medical profession and the laity."

A motion was now made that the name of the committee be changed in Sections 2 and 3 of Chapter X from "Committee on Public Relations" to Committee on Medical Service." This motion was seconded and carried.

A motion was made that the proposed amendment, as amended, be adopted. This motion was seconded, and a two-thirds vote of all delegates registered having been cast for the amendment, the chair declared the motion carried and the amendment adopted.

Dr. Earle Johnson presented to the Secretary-Treasurer the names of the committee to revise the Constitution and By-Laws.

New business was called for by the chair and the fixing of the place for next year's meeting was discussed.

Dr. A. J. Offerman extended an invitation to the Nebraska State Medical Association to have the next session in Omaha.

A motion was made and seconded that the 1947 Annual Assembly be held in Omaha, Nebraska. The motion was seconded and carried.

A motion was made that the secretary be instructed to send the proper resolutions to the Hotel Cornhusker for their excellent services, to the Lancaster County Medical Society for the many courtesies extended the association, and to the Lincoln newspapers for their splendid cooperation and publicity. The motion was seconded and carried.

A motion was made to adjourn. Seconded and carried.

ROLL CALL—HOUSE OF DELEGATES, 1946

	Session		
	1st	2nd	3rd
ADAMS—			
G. L. Pinney, Hastings (D)		P	P
R. H. Schaefers, Hastings (A)			
BOONE—			
G. W. Sullivan, St. Edward (D)			
J. E. Davis, Albion (A)			
BOX BUTTE—			
J. S. Broz, Aliance (D)	P		P
F. P. Sucgang, Alliance (A)			
BUFFALO—			
BURT—			
L. E. Sauer, Tekamah (D)	P	P	
F. M. Heacock, Lyons (A)			
BUTLER—			
O. E. Longacre, Rising City (D)			
L. J. Ekeler, David City (A)			
CASS—			
H. W. Worthman, Louisville (D)			
O. E. Liston, Elmwood (A)			
CHEYENNE-KIMBALL-DEUEL—			
C. B. Dorwart, Sidney (D)			
Hull Cook, Sidney (A)			
CLAY—			
H. V. Nuss, Sutton (D)			
COLFAX—			
H. D. Kuper, Leigh (D)	P		
CUSTER—			
F. A. Burnham, Arnold (D)			
R. D. Bryson, Callaway (A)			
DAWSON—			
C. H. Sheets, Cozard (D)	P	P	P
H. M. Harvey, Gothenburg (A)			
DODGE—			
R. T. Van Metre, Fremont (D)			
A. O. Fasser, Fremont (A)			
FILLMORE—			
J. Bixby, Geneva (D)	P	P	
V. V. Smrha (A)			
FIVE COUNTY (CEDAR, DIXON, THURSTON, WAYNE, DAKOTA)—			
Walter Benthack, Wayne (D)	P	P	
L. J. Kilian, Wayne (A)			
R. E. Bray, Ponca (D)			
R. C. Richards, Newcastle (A)			
F. P. Dorsey, Jr., Hartington (D)	P		
F. G. Dewey, Coleridge (A)			
FOUR—			
Eldon J. Smith, Burwell (D)	P	P	P
C. J. Miller, Ord (A)			
FRANKLIN—			
Hal C. Smith, Franklin (D)	P		
F. E. Nail, Franklin (A)			
GAGE—			
R. W. Taylor, Beatrice (D)			
H. D. Runty, Beatrice (A)	P		P
GARDEN-KEITH-PERKINS—			
E. A. Harvey, Ogallala (D)	P	P	P
W. G. Seng, Oshkosh (A)			
HALL—			
Geo. DeMay, Grand Island (D)			
E. A. Watson, Grand Island (A)			
HAMILTON—			
J. M. Woodard, Aurora (D)	P		
HARLAN—			
K. C. McGrew, Orleans (D)			
R. H. Kerr, Alma (A)			
HOLT & NORTHWEST—			
HOWARD—			
J. Y. Racines, Palmer (D)			
M. O. Arnold, St. Paul (A)			
JEFFERSON—			
JOHNSON—			
C. H. Zeigler, Vesta (D)			
J. A. Lanspa, Tecumseh (A)			
LANCASTER—			
E. W. Hancock, Lincoln (D)	P	P	P
E. E. Angle, Lincoln (A)			
E. S. Wegner, Lincoln (D)		P	P
T. C. Moyer, Lincoln (A)			
W. C. Becker, Lincoln (D)	P	P	P
H. S. Morgan, Lincoln (A)			
LINCOLN—			
G. B. Dent, North Platte (D)	P		P
L. F. Valentine, North Platte (A)			
MADISON SIX—			
John Reid, Pilger (D)			
H. S. Tennant, Stanton (A)			
E. E. Curtis, Neligh (D)	P	P	
W. S. Harrison, Neligh (A)			
E. L. Brush, Norfolk (D)			
A. N. Howley, Norfolk (A)			
Wm. Wright, Creighton (D)	P	P	P
R. E. Johnson, Wausa (A)			
H. W. Francis, Bancroft (D)			
A. W. Anderson, West Point (A)			
W. I. Devers, Pierce (D)		P	P
A. E. Mailiard, Osmond (A)			
MERRICK—			
NANCE—			
NEMAHA—			
I. W. Irvin, Auburn (D)	P		
Edgar Cline, Auburn (A)			
NORTHWEST NEBRASKA—			
S. A. Swenson, Hay Springs (D)	P	P	
L. H. Hoevet, Chadron (A)			
NUCKOLLS—			
Arnold I. Webman, Superior (D)	P	P	P
OMAHA-DOUGLAS—			
W. J. McMartin, Omaha (D)	P	P	P
A. C. Johnson, Omaha (A)			
F. C. Hill, Omaha (D)	P	P	P
E. J. Kirk, Omaha (A)			
A. J. Offerman, Omaha (D)	P	P	P
David Findley, Omaha (A)			
O. J. Cameron, Omaha (D)	P		
Joseph A. Pleiss, Omaha (A)		P	
Herbert H. Davis, Omaha (D)	P	P	P

E. L. MacQuiddy, Omaha (A)			
E. M. Walsh, Omaha (D)			
Chas. F. Moon, Omaha (A)	P	P	P
F. Lowell Dunn, Omaha (D)	P		
L. O. Hoffman, Omaha (A)			
OTOE—			
PAWNEE—			
A. B. Anderson, Pawnee City (D)	P	P	P
E. L. McCrea, Table Rock (A)			
PHELPS—			
T. A. Peterson, Holdrege (D)	P		
PLATTE—			
A. W. Abts, Humphrey (D)			
P. H. McGowan, Columbus (A)			
POLK—			
H. S. Eklund, Osceola (D)			
C. L. Anderson, Stromsburg (A)	P		
RICHARDSON—			
H. R. Miner, Falls City (D)			P
Wm. Shepherd, Falls City (A)			
SALINE—			
L. W. Forney, Crete (D)	P		P
F. J. Stejskal, Crete (A)			
SAUNDERS—			
W. W. Noyes, Ceresco (D)	P	P	P
W. Ray Hill, Wahoo (A)			
SCOTTS BLUFF—			
W. Max Gentry, Gering (D)			
H. A. Blackstone, Bridgeport (A)	P	P	P
SEWARD—			
J. T. Stanard, Seward (D)		P	
C. F. Hille, Beaver Crossing (A)			
SOUTHWESTERN NEBRASKA—			
F. M. Karrer, McCook (D)			
J. E. Prest, Trenton (D)			
A. B. Fellers, Palisade (A)			
J. F. Premer, Benkelman (D)			
G. A. Morehouse, Benkelman (A)			
Clarence Minnick, Cambridge (D)	P	P	P
B. F. Stearns, Cambridge (A)			
B. I. Mills, Maywood (D)			
J. M. Willis, McCook (A)			
E. F. Leininger, McCook (D)	P		P
D. H. Morgan, McCook (A)			
Faye Smith, Imperial (D)			
Geo. Hoffmeister, Imperial (A)			
THAYER—			
F. A. Mountford, Davenport (D)	P	P	P
V. D. Douglas, Carleton (A)			
WASHINGTON—			
Morris Nielsen, Blair (D)	P	P	P
W. E. Goehring, Blair (A)			
WEBSTER—			
YORK—			
H. O. Bell, York (D)	P		
F. W. Karrer, Benedict (A)			
	38	28	27

NEBRASKA SURGICAL PLAN
CASH RECEIPTS AND DISBURSEMENTS

May 31, 1946

Cash on hand May 1, 1946		$37,558.74
Receipts:		
From dues	$ 7,877.80	
From enrollment fees	636.00	
Taxes deducted from salaries	4.30	8,518.10
		$46,076.84
Disbursements:		
Administrative expense	$ 1,262.10	
Claims paid	3,275.00	
Salary, Executive Director	150.00	
Secretary's fee	25.00	
Advertising	141.85	
Printing and stationery	245.12	
Attorney	60.00	
Refunds	342.75	
Hospital records	4.00	
Home office travel and expense	149.80	
Collection expense	.87	
Postage	132.84	
Medical Adviser	70.00	
Dues	18.00	5,877.33
Cash on hand, May 31, 1946		$40,199.51
Bank Balance, May 31, 1946		$40,199.51

NEBRASKA SURGICAL PLAN
BALANCE SHEET

May 31, 1946

Assets:			
Cash in bank		$40,199.51	
Premiums in process of collection		566.06	
U. S. Bonds (cost plus accrued interest)		10,035.55	
Prepaid insurance premiums		62.92	
			50,864.04
Liabilities:			
Accounts payable, Blue Cross		$ 1,415.45	
Accounts payable, monthly invoices		468.52	
Accrued payroll taxes		11.60	
Claims payable		1,250.00	
Accrued audit expense		125.00	
Unearned premiums		16,447.69	
		$19,718.26	
Subscribers 4% Surplus Notes	$19,450.00		
Net income to date	11,695.78		
		$31,145.78	
			$50,864.04

NEBRASKA SURGICAL PLAN

INCOME AND EXPENSES

May 31, 1946

	May 1946	5 Months to Date
Income:		
From dues	$ 7,077.25	$26.753.25
From enrollment fees	636.00	2.595.00
	$ 7,713.25	$29.348.25
Expenses:		
Claims	$ 3,425.00	$12.987.50
Salary, Eexecutive Director	150.00	750.00
Legal	60.00	220.00
Auditing	25.00	125.00
Advertising	95.53	655.56
Printing	116.75	852.63
Insurance	20.00	100.00
Stationery	39.38	39.38
Administrative expense	1,415.45	5,350.65
Home Office travel and expense	149.80	296.00
Professional fees, E.K.M.	25.00	125.00
Collection expense	.87	9.08
Taxes and licenses	1.50	37.50
Miscellaneous	4.00	7.00
Postage	132.84	132.84
Dues	18.00	45.50
Medical adviser	70.00	190.00
	$ 5,749.12	$21.923.64
Net Gain	$ 1,964.13	$ 7,424.61

MEMBERSHIP SUMMARY, MAY, 1946

	Subscribers	Dependents	Total
1. Membership—May 1, 1946	4,783	6,216	10,999
Additions	802	933	1,735
Cancellations	63	76	139
Net Gain	739	857	1,596
Membership—June 1, 1946	5,522	7,073	12,595
2. Number of groups now enrolled			375
3. Number of groups added during May			41
4. Members enrolled by salesman:			
M. W. Ashton (outstate)			259
W. V. Jones (Omaha)			209
B. R. Lohnes (Omaha)			137
G. S. Malone (outstate)			127
C. H. Smith (Omaha)			37
Office			33
			802

MAY ENROLLMENT BY COMMUNITIES

OMAHA—18 groups, 361 members
All Makes Typewriter Company
Baum Iron Company
Alfred Bloom Company
Joseph Dienstfrey Company
Club Delmar
International Business Machines
Midstate Underwriters Inc.
National Cash Register Company
Natkin and Company
Nebraska Seed Company
Omaha Catholic Charities
Omaha Floor and Sanding Company
Omaha Printing Company
A. E. Samuelson Company
H. P. Smith Motors
U. S. Engineers
Wachob-Bender Corporation
F. E. White Company

SCOTTSBLUFF—3 groups, 24 members
H. and B. Packing Company
McCosh Drug Company
Valley View Club

FREMONT—1 group, 32 members
Fremont Public Schools

SUPERIOR—1 group, 6 members
City of Superior Light Department

HASTINGS—12 groups, 164 members
Bi-Lo Market
Blue River Creamery
Bruce's Jewelry
City of Hastings—Gas Department
City of Hastings—Water, Light Department
Foote Clinic
Fuller Motor Company
Hastings Ministerial Association
Hastings Public Schools
S. S. Kresge Company
Steven's Studio
F. W. Woolworth Company

LINCOLN—2 groups, 92 members
Lincoln Health Department
Magee's
CURTIS—1 group, 5 members
Curtis Public School
WISNER—1 group, 10 members
Wisner Public Schools
DAVID CITY—1 group, 7 members
David City Hospital
WALLACE—1 group, 12 members
Wallace Public Schools
ALLIANCE—2 members
BENKELMAN—26 members
BEATRICE—1 member
GRAND ISLAND—48 members
FALLS CITY—2 members
HOLDREGE—2 members
NEBRASKA CITY—1 member
NORTH PLATTE—3 members
YORK—4 members

NEBRASKA SOCIETY OF MEDICAL TECHNOLOGISTS

The Nebraska Society of Medical Technologists held its annual meeting Saturday, May 4, at the Cornhusker Hotel, Lincoln, Nebraska. Mrs. Ramona C. Forbes, President, presided over the meetings, and the program was arranged by the Program Committee under the chairmanship of Miss Florence Tucker.

Dr. George R. Underwood, Lincoln, presented a discussion on Streptococci based on research and experience in which he participated while in the U. S. Navy.

Dr. John R. Schenken, Pathologist at Nebraska Methodist Hospital, Omaha, gave an informative, illustrated lecture on The Diagnosis of Venereal Disease.

Dr. Pelouze of the U. S. P. H. S. gave a few remarks on the cultivation and identification of the gonococcus.

A quiz program, with Mrs. Ida Blore as mistress of ceremonies, and Drs. Schenken, George W. Covey, and Lall G. Montgomery as the board of experts, answered questions previously submitted by the members.

Dr. Lall G. Montgomery, Chairman of the Board of Registry of the American Society of Clinical Pathologists, was the dinner speaker at the annual dinner in the evening. His subject was Post-War Medical Technology.

At the business meeting in the afternoon, the following officers were elected to guide the destiny of N. S. M. T. for 1946-1947:

President—Ruth Pohle, University Hospital, Omaha

President-elect—Florence Tucker, Bryan Memorial Hospital, Lincoln

Vice-President—Elizabeth Pitsch, Drs. Covey and Rogers, Lincoln

Secretary—Jean Ellison, Nebraska Methodist Hospital, Omaha

Treasurer—Esther Wolla Copeman, Dr. Paul M. Bancroft, Lincoln

Membership Committee Chairman—Inez Roesky, Immanuel Hospital, Omaha

Thirty-nine technicians were registered at the meeting, and seventy members and friends attended the annual dinner.

Esther Wolla Copeman,
Acting Secretary, 1946.

HUMAN INTEREST TALES

Communications bearing human appeal are solicited. They should be addressed to The Editor, Nebraska State Medical Journal, Mezzanine No. 3, Medical Arts Building, Omaha.

Dr. L. W. Elwood, formerly of Hay Springs, is practicing at Shelton.

Dr. C. C. Copeland, who has been a physician for 52 years, has recently celebrated his 42nd year in practice at Beaver City.

Dr. Richard Young spoke on Psychosomatic Medicine before the May meeting of the Dodge County Medical Association in Fremont.

Dr. M. B. Wilcox, Kearney, spoke before the Cosmopolitan Club in June, on his experiences while a lieutenant commander in the Navy.

New officers of the Lutheran Hospital staff, Beatrice, are Dr. S. M. Rathbun, president; Dr. R. Brown, vice president, and Dr. H. M. Hepperlen was re-elected secretary.

Dr. G. L. Sandritter, Norfolk, and Dr. Robert S. Wigton, Omaha, were elected to membership in the American Psychiatric Association, at its 101st annual meeting in Chicago, in May.

The sincere sympathy of the Journal is extended to Dr. Roy Whitham, of Lincoln, on the recent death of his wife, on May 22, and also to Dr. R. T. Van Metre, Fremont, whose wife died on May 22.

Dr. Claude A. Selby was married to Miss Mary Carroll on May 20, at Kansas City, Mo. They will make their home in Dallas, Texas, where Dr. Selby is connected with the U. S. Public Health Service.

Among Nebraska physicians attending the American College of Physicians' meeting in Philadelphia in May were: Drs. Ross V. Taylor and T. C. Moyer, Lincoln; Dr. E. E. Farnsworth, Grand Island; Drs. Frank Conlin, J. D. McCarthy, Warren Thompson, L. T. Hall, F. W. Niehaus, E. E. Simmons, Ben Slutzky, R. L. Traynor and Edmond Walsh, all of Omaha.

BOOK RECEIVED

The Management of Fractures, Dislocations, and Sprains by John Albert Key, B.S., M.D., St. Louis, Mo., Clinical Professor of Orthopedic Surgery, Washington University School of Medicine; Associate Surgeon, Barnes, Children's, and Jewish Hospitals, and H. Earle Conwell, M.D., F.A.C.S., Birmingham, Ala., Orthopaedic Surgeon to the Tennessee Coal, Iron and Railroad Company and the American Cast Iron Pipe Company; Chairman of the Committee on Fractures and Traumatic Surgery of the American Academy of Orthopaedic Surgeons. Member of the Fracture Committee of the American College of Surgeons. Associate Surgical Director of the Crippled Children's Hospital, Attending Orthopaedic Surgeon to St. Vincent's Hospital, South Highlands Hospital, Jefferson-Hillman Hospital, Children's Hospital and Baptist Hospitals, Birmingham, Alabama. Fourth Edition, 1322 pages with illustrations. The C. V. Mosby Company, St. Louis, Missouri, 1946.

ROSTER OF NEBRASKA PHYSICIANS IN MILITARY SERVICE

As of June 15, 1946

ADAMS COUNTY
Shaw, W. L., Hastings
Uridil, C. F., Hastings

BOONE COUNTY
Higgins, J. P., Albion

BOX BUTTE COUNTY
Morgan, R. J., Alliance

BUFFALO COUNTY
Albertson, L. C., Kearney
Dickinson, L. E., Ravenna
Hayes, C. B., Kearney
Wilcox, M. B., Kearney

CASS COUNTY
Anderson, R. R., Nehawka

CHEYENNE COUNTY
Bush, Stuart K.

CUMING COUNTY
Krause, Richard A., West Point
Robbins, H. M., West Point
Thompson, L. L., West Point

CUSTER COUNTY
Koefoot, Ted, Jr., Broken Bow
Leonard, Patrick, Broken Bow
Pester, Geo., Broken Bow
Raasch, Richard, Broken Bow

DAWES COUNTY
McElligott, E. W., Chadron

DAWSON COUNTY
Anderson, A. W., Lexington

DODGE COUNTY
Byers, R. C., Jr., Fremont.

DOUGLAS COUNTY
OMAHA
Avery, Hiram Henry
Barber, Herbert Gordon
Bowers, Warren F.
Carp, Oscar, Int.
Crawford, Wm. Henry
Curti, Ralph Elmer
Dolce, Daniel D., Int.
Dornberger, G. R.
Everitt, Neill J.
Fogarty, Chas. James
Gross, Jos. J.
Green, Chas. Joseph
Harms, H. H., Int.
Hartford, Thos. J.
Hennegan, Geo. F.
Henrich, Leo. Chas.
Hoekstra, Clarence, S., Int.
Kemp, Wm. T.
Koutsky, Jas. John, Int.
Krieg, Jacob J., Int.
Lierman, C. E., Int.
Mangiameli, Carl L.
Mooater, Chas. J., Int.
Nurenberger, Robt. E.
Patton, John Erwin
Peterson, Wendell Case
Penry, Richard E., Int.
Reiner, Walter M., Int.
Senter, Vance E., Int.
Strand, Clarence Johnson
Wendland, John P.

FILLMORE COUNTY
Tucker, John G., Milligan

FRANKLIN COUNTY
Williams, Martin P., Franklin

GAGE COUNTY
Rush, Weaver A., Beatrice
Smartwood, F. M., Adams

HALL COUNTY
Campbell, John F., Grand Island
Johnson, E. George, Grand Island

HITCHCOCK COUNTY
Brown, Kenneth W., Stratton

JEFFERSON COUNTY
Lynch, Geo. M., Fairbury

KEARNEY COUNTY
Sutton, Bruce, Minden

KNOX COUNTY
Green, Carl Raymond, Niobrara

LANCASTER COUNTY
LINCOLN
Bartholomew, P. H.
Colbert, Morgan R.
Everett, H. H., Jr.
Lotman, Harry Alfred
William, Russell I.

LINCOLN COUNTY
Anderson, Gustave Theodore, N. Platte
Anderson, Thorwald R., N. Platte

OTOE COUNTY
Campbell, G. C., Nebraska City
Thorough, Paul H., Syracuse

PAWNEE COUNTY
Harmon, Leo D., Pawnee City
Lowe, DeWitt S., Pawnee City

PHELPS COUNTY
Brewster, Donald E., Holdrege

RICHARDSON COUNTY
Youngman, R. A., Falls City

SAUNDERS COUNTY
Kasper, R. J., Wahoo

SCOTTS BLUFF COUNTY
Black, Eugene W., Gering
Hanna, Joe T., Scottsbluff

SEWARD COUNTY
Clarke, Harry D., Seward

SHERIDAN COUNTY
Sullivan, Paul J., Rushville

THAYER COUNTY
Panter, Lt. E. G., Hebron

VALLEY COUNTY
Round, John N., Ord

News of Veterans

Dr. Francis Obert has resumed his practice at Red Cloud.

Dr. Edgar E. Struve is associated with Dr. R. Russell Best, Omaha.

Dr. R. M. Johnson is associated with Dr. J. H. Calvert at Pierce.

Dr. Robert Garlinghouse is associated with Dr. Roy Whitham in Lincoln.

Dr. Willard C. Roley has been appointed assistant superintendent of Hastings State Hospital.

Dr. Lee C. Holmes, graduate of University of Nebraska in 1941, has located in Central City.

Dr. George B. Salter has resumed his practice at Norfolk, and has formed a partnership with Dr. B. R. Farner.

Dr. D. T. Kelley, graduate of University of Nebraska College of Medicine in 1944, has opened an office in Osceola.

Dr. Robert R. Geer, who practiced in Johnstown, Pa., before entering military service, has opened an office in Grand Island.

Dr. Lawrence L. Anderson has opened an office at 1314 Medical Arts Bldg., Omaha, with practice limited to oral and plastic surgery.

Dr. W. H. Hill, who practiced at Centerville, S. D., previous to his military service, is now associated with Dr. R. T. Van Metre, Fremont.

Dr. Wilfred Shaw, formerly of Hastings, has accepted a position on the medical staff of Birmingham General Hospital, Van Nuys, Calif.

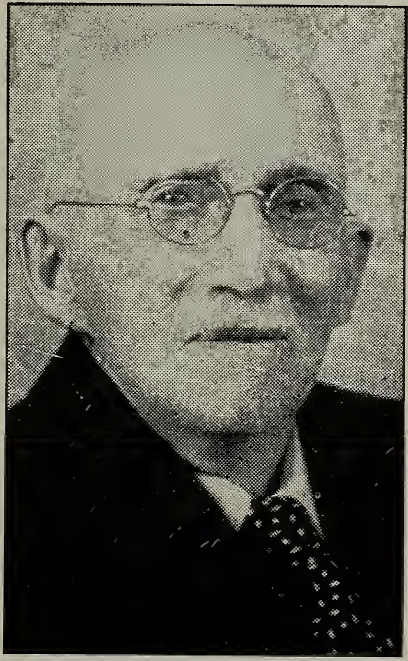
Robert J. Stein, M.D., and Rex M. Strader, M.D., announce their association in the practice of neurology and psychiatry at 343 Stuart Bldg., Lincoln.

Doctors recently returned from military service and who have again resumed their practices in Omaha are: Dr. Chester H. Waters, Jr., at 831 Medical Rrts Bldg.; Dr. James Finegan, 416 Medical Arts Bldg.; Dr. Floyd Nelson, 6067 Military Ave.; Dr. A. V. Murphy, 1420 Medical Arts Bldg.

Dr. D. B. Wengert, who is associated with Dr. A. E. Buchanan, Fremont, has received the Navy's commendation ribbon for "distinctive service in establishing and expanding hospital facilties to accommodate the patients during an epidemic of typhus . . . that by his tireless efforts and meticulous care, expeditiously brought the disease under control."

DEATHS

Rosenberg, Frank J., Lexington. Born in Ohio in 1850. Graduated from Eclectic Medical College, Cincinnati in 1873. For several years he practiced medicine in Roanoke, Ill., and in 1883 he came to Plum Creek, now Lexington. He remained there until the time of his death, May 30, 1946. Dr. Rosenberg was one of the most prominent physicians in the state. In addition to carrying a large practice he took a very active part in the promotion of irrigation and farming in that area. He was also active in civic and church affairs. He served as a trustee of the local Methodist Church for sixty years. Professionally he showed a great interest in organized medicine. He was charter member of the Dawson County Medical Society which was organized in 1901. He served variously as delegate, and Councilor to the Nebraska State Medical Association, past president of the Council District Medical Society and of Dawson County Medical Society. Immediate survivors are one daughter who lives in Lexington and two sons, one of whom is Dr. Earl Rosenberg of San Diego, Calif.



—Courtesy Lexington Clipper

Boetel, George Hans, Omaha. Born in Millard, Nebr., in 1882. Graduate of Creighton University School of Medicine in 1907. He practiced at Rock Rapids, Iowa prior to locating in Omaha in 1932. For several years he served as Douglas County physician and was on the staff of the Immanuel Hospital. He died May 14, 1946. Survivors are his wife and a daughter.

Erman, Jacob Martin, Omaha. Born in Minnesota in 1892. Graduated from Chicago College of Medicine and Surgery in 1916. Served in the U. S. Army Medical Corps in the first World War, 1917 to 1919. Located in Omaha and remained in active practice until June 4, 1946, when he died suddenly as a result of a coronary occlusion. Dr. Erman was a member of the Omaha-Douglas County Medical Society, the Nebraska State Medical Association and fellow of the American Medical Association. He took great interest in the activities of the American Legion and in the Veterans of Foreign Wars. He was a past National Commander in the last named organization and at the time of his death he was a member of the National Council. He is survived by his wife.

Smith, David Jackson, Osceola, was born at Washington, Pa., in 1864. He received his medical education at the University of Iowa for two years, then transferred to the Omaha Medical School, from which he graduated in 1898. The doctor located in Rising City until 1906 when he moved to Osceola and became associated with the late Dr. L. M. Shaw. After the death of Dr. Shaw he became associated with Dr. H. S. Eklund and this association continued until his retirement from practice in 1937. Dr. Smith died at the St. Francis Hospital, Osceola, May 23, 1946.

BOOKS RECEIVED

Cornell Conferences on Therapy, Volume One, edited by Harry Gold, M.D., Managing Editor, David P. Barr, M.D., Eugene F. DuBois, M.D., McKeen Cattell, M.D., Charles H. Wheeler, M.D. 322 pages, publication date May 14, 1946. Price $3.25. The MacMillan Company, 60 Fifth Avenue, New York, N. Y.

Synopsis of Pathology by W. A. D. Anderson, M.A., M.D., F.A.C.P., Professor of Pathology and Bacteriology, Marquette University School of Medicine; Pathologist, St. Joseph's Hospital, Milwaukee, Wisconsin; formerly Associate Professor of Pathology, St. Louis University School of Medicine. 741 pages with 327 text illustrations and 15 color plates. The C. V. Mosby Company, St. Louis, Missouri, 1946.

ALLERGY SENSITIVE PERSONS INCREASING IN NUMBER

An Ohio physician says there is an alarming increase of persons subject to allergic sensitivities and places the responsibility for this increase on two factors: the intermarriage of allergic individuals and the rapid growth and distribution of substances causing allergy.

Karl D. Figley, M.D., of Toledo, Secretary of the American Academy of Allergy, writing in the current issue of Hygeia, health magazine of the American Medical Association, says:

"To our knowledge, heredity is the factor determining whether or not one is allergic. The allergic individual is born with the predisposition to become sensitive to substances he encounters in later life. He inherits or lacks something that gives him the so-called "allergic constitution.' "

Pollens and various dusts cause allergic sensitiveness to develop. House dust is a common offender. The author blames the crowding of homes with overstuffed furniture and bedding for this condition. "Because of draperies and other 'dust catchers,' the dust problem is always present. Central heating plays an important role in distributing dusts effectively through the home also."

Asthma is one of the most troublesome and disabling of the allergic manifestations. Dr. Figley explains that "inhalation of dust particles into the smaller air passages of the lungs sets up an allergic inflammation in the delicate lining membrane. Swelling and congestion of the lining occurs, making it difficult for the sufferer to breathe and even more difficult to get rid of the waste air in his lungs. This results in the asthmatic type of breathing.

Many persons have annual nasal symptoms such as sneezing spasms followed by profuse running of the nose which they attribute to sinus trouble. Often they are unable to breathe freely through the nose because the nasal membranes are swollen. In many instances house dust sensitivity is responsible for this combination of symptoms.

In 1922 Dr. Robert A. Cooke of New York showed that house dust contains an allergen peculiar to itself. No one knows the exact nature of this dust allergen. It is thought that it represents a deterioration product of feathers, cotton and kapok, due to aging. Possibly mold action is a factor. Pillows and mattresses stored in damp cottages have a potent dust allergen, and of course molds thrive on dampness.

"The basic principle for the allergic," Dr. Figley states, "is to discover his particular allergen or allergens, and avoid contact with them. In the case of such an ever-present substance as house dust, this is not always easy. The individual is instructed to prepare a bedroom that is dust free. Walls must be cleaned, rugs and draperies removed, closets emptied of 'dust catchers,' and the pillows and mattresses encased with impervious covers."

Another helpful measure for the allergic is to raise his tolerance for dust inhalation by immunizing injections of dust extract.

VACCINATION AGAINST EPIDEMIC INFLUENZA

Three physicians report that vaccination with virus types A and B will exert a protective effect against epidemic influenza B.

Thomas Francis Jr., Jonas E. Salk and William M. Brace of Ann Arbor, Mich., present their study in the May 25 issue of The Journal of the American Medical Association. The investigators are from the Department of Epidemiology and Virus Laboratory, School of Public Health, and the Student Health Service, of the University of Michigan.

During an epidemic of influenza B in November and December 1945, the authors compared a group of approximately 600 army men, enrolled at the University of Michigan, who were injected with concentrated influenza A and B vaccine with another service unit which averaged about 1,100 men who were not vaccinated. Only 7, or 1.15 per cent, of the 600 men were admitted to the hospital for respiratory infection during the epidemic period in contrast to 109, or 9.91 per cent in the unvaccinated service unit.

Influenza is an acute upper-respiratory infection. The symptoms are usually marked by a moderate fever, headache, general pains, extreme exhaustion, sore throat and an irritating cough. It is not fatal except when it leads to secondary pulmonary infections.

The virus of influenza A was first isolated in 1933. A second strain of virus called influenza B was first identified in the epidemics of 1936 and 1940.

In conclusion the authors state that the "evidence clearly indicates that subcutaneous vaccination with inactivated influenza virus types A and B exerted a striking protective effect against epidemic influenza B."

ARMY'S LOWERING OF PHYSICAL STANDARDS HITS PROPAGANDISTS

The often quoted statistics on the number of men rejected by the armed forces as unfit for military service by those who support government controlled medical care now have no foundation, for the Army has changed its measuring stick by the lowering of physical standards for inductions, according to an editorial appearing in the February 23 issue of The Journal of the American Medical Association.

The editorial says in full:

In the propaganda for a change in the nature of the practice of medicine, those who support government controlled medical care have emphasized chiefly up to now the number of men rejected by th armed forces as unfit for military service. Even President Truman, in sending his health message to Congress, dwelt considerably on these figures. Now the Army has suddenly lowered the physical standards for induction under the Selective Service; it will accept for induction men with the following physical defects previously listed as unqualified for military service:

Lateral deviation of the spine from the midline of more than 1 inch and less than 2 inches; history of thyroidectomy for toxic goiter with complete absence of active manifestations for two years; hernia, inguinal, which has not descended into the scrotum; hernia, femoral; individuals with local paralyses such as those due to poliomyelitis or nonprogressive disease of the peripheral nerves of such degree that they disqualify for general military service but have not interfered with locomotion and have not prevented the individual from successfully following a useful vocation in civil life; stuttering or stammering of a degree disqualifying for general military service but which has not prevented the man from successfully following a useful vocation in civil life; mild neuroses; moderate transient psychoneurotic reaction, and mental deficiencies, mild in degree.

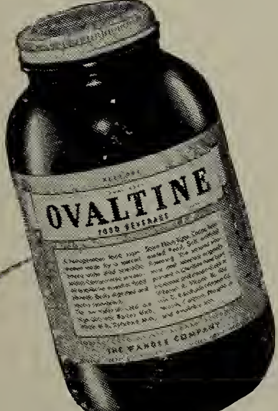
Thus the Army suddenly deprives these propagandists of one of their main arguments. The number of men rejected becomes considerably less; many men who would have been rejected under previous standards are now considered fit. The Journal has insisted again and again that the arguments of Senators Murray and Wagner and Congressman Dingell, who also emphasized the draft statistics, were without scientific foundation. Now the Army has proved them without scientific foundation. When a nation selects the highest standard of fitness for military service that any nation has ever established, people need not be surprised if the number of rejections is greater than those of nations whose standards are considerably lower. The public has little or no knowledge of the measuring stick that was used. Now the fact that the Army can change its measuring stick any time it wants to do so becomes clearly apparent.

ALL THE NUTRIENTS

Essential for a Food Supplement

Whenever the intake of essential nutrients must be augmented, as in convalescence from surgery or infectious disease, or in the correction of malnutrition, the delicious food drink which results from mixing Ovaltine with milk can be of significant value. This palatable food supplement provides a wealth of essential nutrients in a pleasant, easily assimilated form. It supplies protein of high biologic value, readily metabolized carbohydrate, easily emulsified fat, ascorbic acid, B complex and other vitamins, as well as essential minerals. Three glassfuls daily sharply augments the intake of these nutrients, as shown by the table of composition. Its low curd tension makes for rapid gastric emptying, hence appetite for the next meal is not interfered with. This delicious food drink is enjoyed both as a mealtime beverage and between meals.

THE WANDER COMPANY, 360 N. MICHIGAN AVE., CHICAGO 1, ILL.



Ovaltine

Three servings daily of Ovaltine, each made of
½ oz. of Ovaltine and 8 oz. of whole milk,* provide:

CALORIES	669	VITAMIN A	3000 I.U.
PROTEIN	32.1 Gm.	VITAMIN B_1	1.16 mg.
FAT	31.5 Gm.	RIBOFLAVIN	1.50 mg.
CARBOHYDRATE	64.8 Gm.	NIACIN	6.81 mg.
CALCIUM	1.12 Gm.	VITAMIN C	39.6 mg.
PHOSPHORUS	0.939 Gm.	VITAMIN D	417 I.U.
IRON	12.0 mg.	COPPER	0.50 mg.

*Based on average reported values for milk.

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ROUTINE LARGE SCALE TESTS URGED FOR NEGATIVE BLOOD FACTOR

Routine large scale testing of blood can save the lives of many persons resistant to the Rh negative factor in blood transfusions, according to the report of three investigators in the December 15 issue of The Journal of the American Medical Association.

Major Leslie H. Tisdall and Captain Donald M. Garland, Army Medical Corps, with the technical assistance of Evan L. Durham, New York, explain the ease with which Rh testing can be conducted. Examination of the blood is made by using either anti-rhesus, immune serums prepared in rabbits and other animals, or standard anti-Rh serums from human beings.

The stock anti-Rh serum is mixed with a drop of undiluted red blood cells on a slide divided into squares. This slide can accommodate 50 tests simultaneously. If within a minute a clot is formed by the mixture then the blood is Rh positive but if it remains in liquid form it means that a breaking down of the red cells has occurred and the blood is Rh negative.

The Rh substance is a complicated protein found within the red blood cell. It is made up of several sub-groups and is inherited. Approximately 14 per cent of the white population is Rh negative according to the authors.

A reaction which may bring death occurs when an Rh-negative individual receives transfusion of Rh-positive blood. A pregnant woman who has Rh-negative blood may have a stillbirth or give birth to a child who will die within a few hours if the husband and baby should have Rh-positive blood. An anti-serum is formed in the blood stream of the mother which kills the child under this circumstance. This disease is known as "erytroblastosis of the newborn"—a disease in which the red blood cells are abnormally destroyed.

SPECIAL DIET RELIEVES FATIGUE DUE TO SUGAR DEFICIENCY IN BLOOD

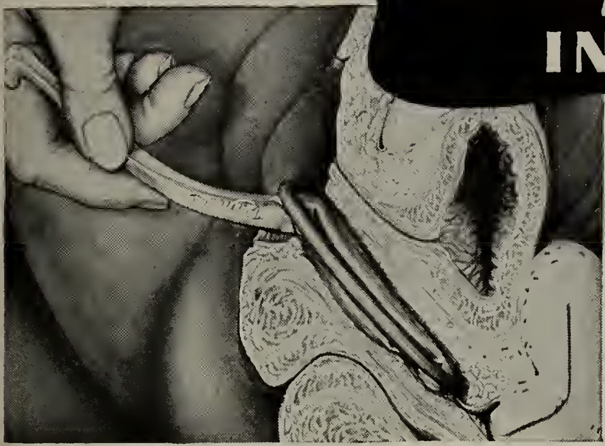
Fatigue and dizziness from hypoglycemia, is effectively alleviated by dietary treatment with high proteins and complex carbohydrates.

Writing in the March 2 issue of The Journal of the American Medical Association, Major Samuel C. Karlan and Captain Clarence Cohn, of the Medical Corps, Army of the United States, say:

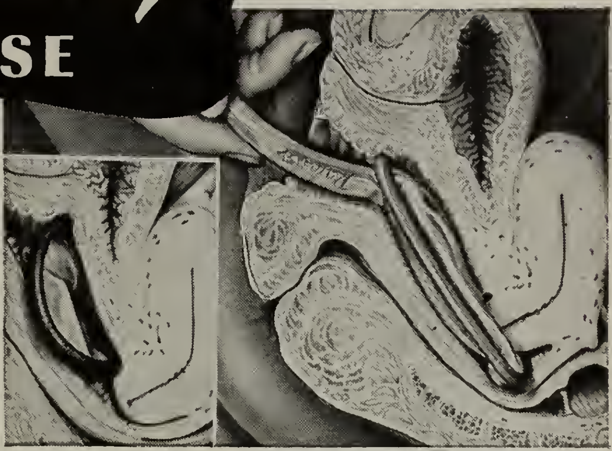
"Of 100 cases of fatigue and weakness studied, nine were believed to be primarily caused by hypoglycemia. The main complaints in all these cases were fatigue and dizziness. Unlike the fatigue in ordinary neurasthenia, the fatigue suffered by these patients was not continuous but occurred at specified times, such as on arising in the morning or several hours after meals. It almost invariably occurred after having missed a meal . . .

"The treatment used in these cases was entirely dietary. Diets high in proteins and carbohydrates of the more complex variety with frequent feedings prevented the symptoms in our cases."

Simplicity
IN USE

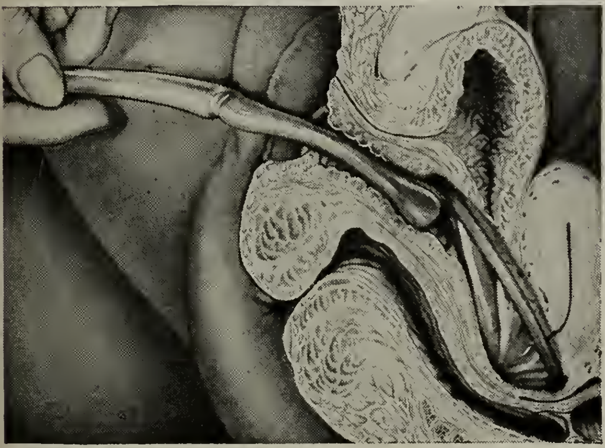


BEGINNING INSERTION

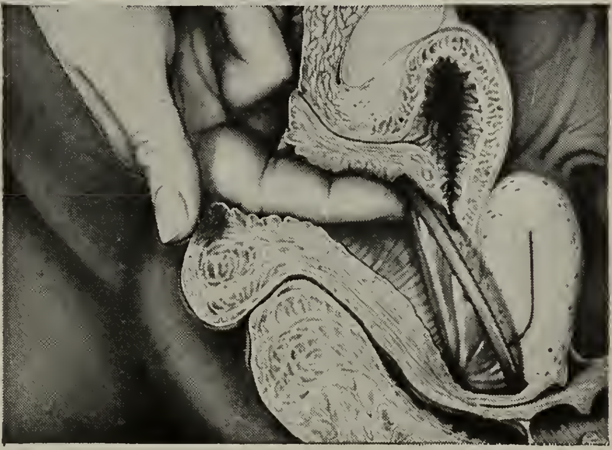


COMPLETING INSERTION

REMOVING INTRODUCER



SEATING DIAPHRAGM



These illustrations, showing the simplicity of use of "RAMSES" Gynecological Products, are reproduced from the booklet *Instructions for Patients*. For the physician's convenience, a supply of these booklets is available, upon request, for distribution to patients.

Determination of indications for control of conception, and advice on the proper method of providing protection, are the exclusive province of the physician. "RAMSES"* Gynecological Products are designed for use under the guidance of the physician only.

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INJECT 1 to 3 cc. Metrazol as a restorative in circulatory and respiratory failure, in barbiturate or morphine poisoning and in asphyxia. PRESCRIBE 1 or 2 Metrazol tablets for a stimulating-tonic effect to supplement symptomatic treatment of chronic cardiac disease and fatigue states.

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TABLETS - 1½ grains.
ORAL SOLUTION - (10% aqueous solution.)

Metrazol, pentamethylentetrazol, Trade Mark Bilhuber.

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STRANGE BABY ILLNESS DUE TO WATER FROM POORLY DUG WELLS

An Iowa City physician, writing in The Journal of the American Medical Association, reports a strange and previously unrecognized condition in infants which he says is due to water from poorly constructed farmyard wells.

Dr. Hunter H. Comly, from the Department of Pediatrics, State University of Iowa College of Medicine, observed two infants whose condition resembled that of a "blue" baby with heart disease present at birth.

The two infants who were the subjects of Dr. Comly's report had gastrointestinal disturbances, but the author adds that diarrhea and vomiting may not always accompany this condition.

Investigation proved that the condition was due to boiled water which came from poorly constructed dug or drilled farmyard wells with defective casings. The water contained large amounts of nitrate, specially concentrated in manure and other fertilizers. When these nitrate compounds are ingested and converted by bacterial action to nitrites, they produce the unusual symptoms in infants.

"The condition is not rare," Dr. Comly says. "Ample opportunity for its frequent occurrence exists. The condition may occur in any degree of severity, either acutely, subacutely or chronically. It may possibly lead to a fatal outcome. In all probability certain instances are incorrectly interpreted as being due to congenital heart disease."

Dr. Comly says that the Iowa State Hygenic Laboratory tested several samples of water from similar wells and all were found to contain large amounts of nitrates.

He states that after he undertook his study, he learned that Dr. Morgan J. Foster, of Cedar Rapids, Ia., had seen five similar cases in his practice. All the infants tended to be irritable and had diarrhea. From his records, Dr. Foster noted that all the infants were receiving diluted milk formulas and that they came from farms in southeastern Iowa.

"Members of our staff, after having learned of this condition, saw two babies who were cyanotic without obvious cause," writes Dr. Comly. "Both infants improved when the well water was removed from the feedings."

The high nitrate water which the cyanotic infants ingested came from very undesirable wells.

"In many cases," The Journal article says, "the wells were old, dug rather than drilled, had inadequate casings or none at all, and were poorly covered . . . In every one of the instances in which cyanosis developed in infants the wells were situated near barnyards and pit privies. Some of the wells had trees growing nearby and the roots had penetrated or broken down the casings . . .

"Since Jan. 1, 1945, of 91 samples of water from dug wells sent for routine analysis by their owners 18, or roughly 20 per cent, had nitrate nitrogen values above 65 parts per million. These waters might be seriously toxic to infants if fed in any appreciable amounts . . . From 75 to 77 per cent of the privately owned wells in Iowa are contaminated."

Dr. Comly says that from his studies, "it is obvious that artificial feeding of the farm baby is fraught with potential danger, and it serves to emphasize the desirability of breast feeding whenever possible."

THE NEBRASKA STATE MEDICAL JOURNAL

ESTABLISHED 1916 BY THE NEBRASKA STATE MEDICAL ASSOCIATION

Vol. 31 Norfolk, Nebraska, August, 1946 No. 8

EDITORIAL

REPUDIATION OF THE EMIC PROGRAM

In accordance with a resolution passed by the last session of the House of Delegates in Lincoln, the members of our Association have declared themselves opposed to the continuation of the Emergency Maternal and Infant Care program beginning July 1. It will be remembered that the Council proposed that the program be supported for another year, but the House of Delegates felt that inasmuch as the conditions for which the program was created have changed with the cessation of war there is no justifiable reason to support federal payment of maternal and infant care bills.

So far as the Journal is aware, the administration of the program in this state was as good as any system could be under distant, governmental control. If dissatisfaction and conflicts existed, we feel that they were generally traceable to the Congressional Act or its interpretation by the Children's Bureau rather than to interference with the purposes of the program by the Nebraska State Department of Health which carried local responsibilities for its supervision.

Many physicians were opposed to the principles of the program from its very inception, and some flatly refused to recognize it after it had gone into effect. The House of Delegates felt that it was an emergency measure designed to help the morale of young fathers in the service of their country, it would have been in poor taste to repudiate the program. It was approved as a patriotic measure to be recognized for the duration of the war. Most physicians in Nebraska cooperated to the best of their ability in a spirit of helpfulness.

Now that the emergency is over there is no sensible reason to support federal handouts for medical care under paternalistic domination in Washington.*

PRE-SCHOOL EXAMINATION UNDER A VOLUNTARY PLAN

Most of our larger communities and many of our smaller municipalities now give appreciable recognition to sound health as an inescapable prerequisite to scholastic progress of the individual pupil. What is being accomplished is on a purely voluntary basis, since there is no State law, nor to our knowledge, a single school ordinance within the State which concerns itself with the personal health of the pupil, although there are well defined statutes which regulate the control of communicable disease in the school.

Most of the campaigning in behalf of better health for the individual school child is being carried on by women's organizations, aided and encouraged by local medical leadership. Judging from the increasing numbers of children receiving pre-school examinations each year and by the constant multiplication of immunization projects throughout the state, there is good reason to believe that in time most, if not all children will enter Nebraska schools with a completed health record. Education in this, as in many other spheres, we feel, is preferable to, because it is more effective than, compulsion.

In times past, and undoubtedly in some localities even today, the lay sponsors of the pre-school examinations were satisfied with a type of examination which in a strict sense was worse than no examination at all. It was done hastily and perfunctorily under conditions which made a careful evaluation of the child impossible. It is the duty therefore of the participating doctors to insist that facilities both in equipment and in numbers to be examined in a given session be at an optimum, in order that each youngster be afforded the full benefits of a careful examination with necessary advice to be carried out by the family physician before the child enters school. Again it must be emphasized that mass examinations have inherent weaknesses and that the ultimate goal of any community should be a careful examination of the individual child by his own doctor not only prior to entering kindergarten but at least once each year during his whole school career.

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*Members are urged to read carefully and in FULL the testimony on the new EMIC bill which appears in this issue on page 335.

THE AMA CONVENTION

About 8,000 physicians registered at the 99th Annual Convention of the American Medical Association in San Francisco, July 1 to 5. The weather was delightful. It was fair, and to a Nebraskan, almost unbelievably cool. Our California colleagues spared neither expense nor energy in their efforts to supply all the comforts and niceties which make an assembly enjoyable and interesting. There are few cities in the United States which compare favorably with San Francisco in its metropolitan aspects, and it seems that every visitor was afforded the opportunity to become a part of that atmosphere during the week of the convention.

The conflict angle, featured by the press to create and maintain human interest, was observed with unprecedented fidelity. Even prior to the first session of the House of Delegates the local newspapers carried bold headlines about "Politics in the AMA." And, although they were reckless with terms like "rebels," "The Voice," "Old Guard," "Liberals," "stand-patters," and other verbal stimulants, actually the copy was harmless, but for the doubtful impression it left on the public mind. Other than this, the reporting was admirable.

Of outstanding value were, as usual, the scientific exhibits. Indeed, it was the opinion of many physicians that these exhibits are by far the best sources of information and interest at the Convention. We believe it. We felt particularly proud of our own members who participated in these exhibits. Drs. A. E. Bennett, Paul Cash, and Ross McIntyre; and Dr. J. Jay Keegan had booths in the Section on Neurology, and Dr. James Martin served as demonstrator in the Section on Fractures.

The technical exhibits also had much to offer. The displays were orderly in arrangement, and the representatives uniformly courteous and cooperative.

The scientific program, in the opinion of many, was a bit disappointing. There were some excellent papers, to be sure, but the overall menu left much to be desired. This statement is not made in criticism of those responsible for the scientific assembly. This group was undoubtedly handicapped by early postwar conditions. Many physicians active in laboratory and clinical research were either on military duty, or had been discharged shortly before the program was completed. Those who had remained at home were still working under wartime shortage of personnel. We feel confident that next year in Atlantic City the scientific program will revert to its uniformly good quality.

PEDIATRIC SURVEY IN NEBRASKA

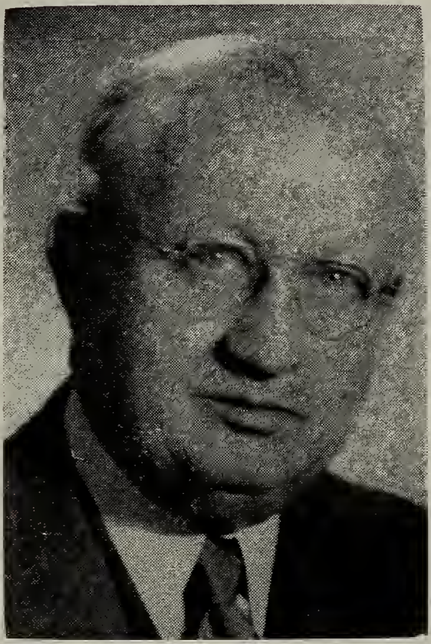
The pediatric survey in Nebraska under the sponsorship of the American Academy of Pediatrics and endorsed by the Nebraska State Medical Association is now in progress. The survey was fortunate enough to secure the services of our Mr. M. C. Smith in this effort. One of the methods of obtaining a reliable index on the problem is to ask each physician to tabulate his pediatric services on one particular day. Many physicians wonder why this is necessary. We quote from a leaflet from the study submitted by the American Academy of Pediatrics. This will explain the reason:

"Why Do You Want to Know How Many Patients I Saw on Tuesday (or Wednesday, etc.)?

This question is being asked us so frequently—and not too calmly, we might add—that some further explanation of the request for a one-day record of the practice of general practitioners and specialists on Schedule III-A seems necessary. This one-day record question is asked for the specific purpose of determining how many doctors care for how many children in a given area within a given time, or, in other words, as a means of determining the size of case-loads of doctors in a specific area. It is not being asked in order to determine the size of practice of individual doctors, but rather to determine the overall picture of medical activities in one area over a representative period of time.

If each doctor were left to choose the one day on which he wished to report, the chances are, human nature being what it is,

(Continued on p. 312)



PRESIDENT EARLE G. JOHNSON
Grand Island

The 99th Annual Convention of the American Medical Association has now become a matter of history. It is to the utmost interest of every physician to acquaint himself with the problems discussed and decisions reached by the House of Delegates of our parent organization. State medicine is still one of the greatest threats to our professional safety and individual dignity. Members must keep themselves abreast of developments in that field. In the meantime we should remain convinced that the best method of stalling off this socialistic tendency is to provide voluntary means of prepayment insurance.

Nebraska Medical Service offers an excellent means to counteract vicious propaganda leveled at our organizations from Washington. In this issue is a comprehensive discussion of our Medical Service which, I hope, every member will read and study carefully. Only through proper understanding can physicians advise intelligently on these practical means of budgeting for medical needs which are available to the people of this State.

EARLE G. JOHNSON, M.D.

that he would choose his busiest day. The results would obviously not give a true picture of the normal amount of medical service rendered. Therefore, in order to take into account the atypical as well as the typical days, each doctor is asked to report for a specified day. Thus, supposing that there are 700 doctors practicing in a certain city, when the questionnaires are sent out 100 of them are marked "Monday," another 100 "Tuesday," and so on throughout the entire week. By this method we have 1/7 of all the doctors reporting for each day of the week. The identity of any one doctor thus becomes lost in the over-all picture, so that Dr. Z. who is asked to report for Wednesday, which happens to be the day he is attending a meeting, need not be concerned that the day specified is not typical of his practice.

This procedure is essential in order to obtain statistically accurate data so please follow instructions."

QUESTION USEFULNESS OF QUARANTINE AGAINST POLIOMYELITIS

Usefulness of quarantines established by some states to prevent the spread of poliomyelitis is held "highly questionable" by The Journal of the American Medical Association. In the July 27 issue, The Journal says in an editorial:

"This year, as in previous years, some sections of the country have developed an exceptionally high incidence of poliomyelitis. A few cities in southern Florida were involved in this manner. One of the neighboring states considered the establishment of a quarantine against Florida residents. Georgia actually imposed such a quarantine against all persons coming from the former state, even including Pensacola, which is 402 miles from the nearest city in which there has been an outbreak of poliomyelitis that could possibly be considered as epidemic in nature. The usefulness of this interstate quarantine is highly questionable. The overwhelming consensus of authorities in epidemiology and public health is that such interstate quarantine does not serve any useful purpose in preventing the spread of poliomyelitis. In the absence of more specific knowledge on the methods of spread of the poliomyelitis virus than is now available, state quarantine can only be considered reminiscent of the old practice of shot-gun quarantine against yellow fever before learning the role of the yellow fever bearing mosquito."

ALLERGY TESTS SHOULD PRECEDE NASAL SURGERY

Allergy tests should precede surgery in doubtful cases of chronic nasal obstruction, according to E. A. Thacker, M.D., of the Carle Hospital Clinic, Urbana, Ill.

Writing in the July 27 issue of The Journal of the American Medical Association, Dr. Thacker cites as an example one patient who underwent 10 operations on the nose, including removal of small tumors on several occasions. He appeared at the clinic expecting further nasal surgery since his nose was again blocked with tumors. When tests were made it was found that he showed an allergic reaction only to dog dander. After elimination of eight dogs from his immediate environment the tumors and nasal blockage disappeared.

The author cites other investigators who found that of 1,200 patients with frequent colds who underwent treatment to acquire immunization to colds, 80 per cent were allergic or were from allergic families.

Of 170 cases investigated, Dr. Thacker noted complete relief or appreciable improvement in 63 per cent after elimination of the allergens from the patients' immediate environment. Desensitization with specific allergens relieved another seven per cent. Surgery was performed only where it was absolutely necessary. Results were excellent, with only 2.3 per cent of the patients in the whole series failing to obtain relief.

In the author's opinion swelling and poor ventilation due to nasal allergy make a good hotbed for repeated infection and eventually changes take place which lead to permanent trouble. Sinuses may be examined by x-rays and if they appear cloudy then the patient is a victim of an allergic constitution. The patients frequently have an infection in these sinuses which stems from another cause.

Contrary to the belief of many allergists who state that the majority of nasal symptoms are due to inhalants and that gastro-intestinal disturbances are due to food allergens, Dr. Thacker says that "this series revealed that about one half of the cases of chronic nasal allergy were due to both inhalants and ingestants, approximately one-fourth were due exclusively to inhalants, and a like number were due to foods alone. Inhalant allergens must not be overlooked as the cause of associated gastro-intestinal disturbances, nor ingestants as factors associated with upper respiratory symptoms."

Indications for Open Reduction of Fractures*

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In order to remain within the allotted time and to emphasize certain points I shall limit this discussion by revising the title to read "Indications for Open Reduction and Internal Fixation of Recent Simple Fractures." The question then becomes when should closed reduction be abandoned in favor of an incision that will expose the fragments and permit direct manipulation, perfect approximation and the use of internal fixation to maintain correct position of the fragments?

Open reduction for treatment of fractures may be compared to a fist fight. In the course of a fist fight when one man "knocks down" his opponent and then kicks him in the face, we say that there has been foul play and insult has been added to injury. Similarly, to perform open reduction on a recent fracture may be considered foul play and from the standpoint of the patient's tissues insult has been added to injury. To carry the analogy a bit further, in some heated, unfair altercations the kick in the face may be an excusable insult; likewise, in a limited number of fractures open reduction becomes a necessary evil. However, just as under ordinary circumstances to strike an opponent when he is down is not "cricket," to convert a simple fracture into a compound one by open exposure is poor surgical judgment.

Let us consider first the effects of the injury on the bone and its surrounding tissues. The bone has been broken—perhaps splintered—and is bleeding from the fractured ends. The enveloping periosteum from which the bone receives much of its air, food and fluids through numerous fine blood channels, has been torn and stripped away. The surrounding muscles are bruised, punctured, contracted and drawn with pain and muscular spasm. The nerves have been stunned and paralyzed, the blood vessels are damaged and the blood supply to the parts is reduced. Soon, with the accumulated hemorrhage, augmented by an inrush of edematous fluid and cellular infiltration, the tissue spaces become distended, and the overlying fascia becomes tense. The swelling further compresses the vascular channels so that the flow of blood to the cells is critically reduced. In the vicinity of the fracture there is an intense struggle for existence on the part of the cells forming bone and muscles — they are injured and having a hard time to live and breathe—they are "down and almost out."

Under these conditions the additional trauma of open reduction is truly an insult from which many of the cells and tissues in the vicinity cannot recover. Incision is made through skin and fascia, the blood forming the initial hematoma escapes and thus a valuable asset is lost. Still more periosteum is stripped and retractors, which further bruise and damage muscles and nerves, are inserted. The bones are seized with clamps and held while drill holes are made and metal plates applied. Closure, which demands the use of more foreign materials and puncture holes, can often be obtained only by making tension on the sutures. The tissue has been further injured and the devitalized tissues have now been exposed to infection. No matter how painstaking the surgical technic nor how gentle and efficient the surgeon, some pathogenic organisms always get into the wound. Added cellular injury, the loss of the initial hematoma and the introduction of foreign materials all contribute to delay in healing and formation of callus. If infection takes root and develops, even though it may seem innocuous when controlled by penicillin, it nearly always results in chronic localized osteomyelitis and nonunion. Therefore, added to the insult is the hidden but very real danger of infection.

To go back to the simple fracture, which represents injury without insult. What treatment is indicated? Can the indications be met without performing open reduction?

The prompt control of bleeding and relaxation of muscular spasm is most urgent. These are best accomplished by matching the bone ends and putting the muscles to rest by splinting or by traction. Obviously, the same measures which are essential to good union and good function will accomplish length and alignment.

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*Read before the Omaha Mid-West Clinical Society in Omaha, Nebraska, October 22-24, 1945.

Well-worn and time-honored fracture and surgical principles decree that good union and good function will result if contact between the fragments, full length and good general alignment are maintained during the weeks required for final healing. In fractures of the arm and leg these simple requirements can usually be met by manipulation and application of a plaster splint. Fractures of the shaft of the femur, because of the spasm of the large powerful muscles in the thigh, can seldom be held to full length and in good alignment except by the use of constant traction.

The extent of success following use of these simple principles will depend on:

1. Performance of reduction within two or three hours after the fracture has occurred and before hemorrhage and swelling have become excessive;

2. The type of fracture (transverse, oblique or comminuted);

3. The use of a general anesthetic to obtain complete relaxation of the muscles;

4. Roentgenograms to visualize the level of fracture and the displacement;

5. Skill of the surgeon in manipulating;

6. Efficiency of the splint or traction apparatus applied;

7. Careful and repeated supervision during the early period of healing; and

8. Willingness of the surgeon to give more consideration to the functional end result instead of to a post-operative roentgenogram that indicates a good "carpenter job."

Thus, it is evident that most fractures can be reduced without doing open procedure. This is substantiated by numerous statistics which prove beyond doubt that the best results are more uniformly obtained by means of closed reduction. Undoubtedly the efficient use of the simplest methods results in fewer cases of nonunion, shortest healing periods, best joint function, and fewest complications.

It is well known that open reduction should be done only if reasonably good reduction cannot be obtained by closed methods, since the open procedure always delays healing and may be followed by serious infection. Nevertheless, there are definite, although rare, indications for its use. With reference to open reduction, fractures may be classified into three broad categories:

I. Those in which it must be used because no other method can effect and maintain the reduction.

II. Those in which it may be used.

a. If the fracture remains unreduced after competent efforts.

b. If the surgeon possesses the necessary skill and the hospital has the essential operating facilities and nursing technic.

III. Those in which it should never be done.

I. The **Must** Group. In general, these are the joint fractures. Slight displacements in these cases usually produce incongruous joint surfaces that block motion or produce painful arthritis. In other cases a loose fragment lies in the joint where it cannot be manipulated into position, or is separated and displaced by uncorrectable muscle pulls. The commonest examples upon which practically all authorities are agreed are, fractures of the patella, olecranon, head of the radius, condyle of the humerus or femur, and intracapsular fracture of the neck of the femur.

Incision is made for exposure, reduction and internal fixation in all cases except fractures of the radial head and intracapsular fractures of the hip. The latter can usually be reduced without exposing the fracture line, but a lateral incision is used for introducing pins or a nail to maintain the reduction. In cases of comminuted fractures of the head of the radius, joint function is best preserved by removal of loose fragments and resection of the rest of the head.

II. The **May** Group. Fractures that remain unreduced following competent attempts at closed reduction during the early hours after injury may better be corrected by open reduction if the surgeon has the necessary skill and good operating facilities. Key and Conwell(1) emphasize the diminishing need for open procedures in the statement, "The number of surgeons who treat recent fractures by open reduction will gradually decrease as surgeons in general become more skilled in the treatment of fractures by closed methods." Often, to operate on a fracture is an admission of lack of skill in manipulation.

No matter how competent the surgeon he should pause before doing an open reduction and recall a statement made by Bohler(2):

"If, however, complete reduction is not effected, the injured man is much better off who has slight shortening or angulation of the soundly united bones than is one who, as the result of an operation, suffers for a year with osteomyelitis or erysipelas and remains a chronic patient in the hospital."

One can agree with Kellogg Speed(3) when he says that open reductions may be required after some delay if traction fails, if there has been inadequate use of nonoperative methods or if the surgeon feels that there is a good possibility for better functional results. However, one cannot agree with other reasons he gives, that is, if the surgeon or the patient is impatient, if he fears legal or compensation claims or if the patient demands perfect repositioning which can be obtained only by operation. Any surgeon worthy of his title should do what his honest judgment tells him is to the best interest of the patient without regard for the patient's opinion on fracture treatment or instructions from an insurance company.

Open reduction may be done if the surgeon possesses the necessary skill and if the hospital is properly staffed and equipped. Of course, the surgeon's opinion of his own skill is likely to be biased in his favor and all too often this cannot be changed until he has met with serious reverses by having to amputate the extremity he has been trying to save or become the defendant in a suit for damages. Loyalty to the hospital in which he works sometimes blinds him to the defects and dangers of faulty technic in his own operating room. Fortunately, however, most mature surgeons accept their own limitations and are glad to refer cases for open reduction to a competent confrere.

Because closed reductions are often unsuccessful, open reductions are indicated, with the provisos that have been discussed, in the following fractures:

(1) Shafts of the radius and ulna in adults.

(2) Spiral fractures of both leg bones in adults.

(3) Pott's fracture at the ankle.

(4) Femoral shaft.

(5) Fractures of the tibial plateaus.

(6) Monteggia's fracture of the proximal third of the ulna with dislocation of the head of the radius.

III. The **Never** Group. Blount(4) called attention to the fact that because the repair of fractures in growing children differs greatly from that in adults, open reductions are almost never necessary. He furthermore showed that open reductions are not only dangerous and shocking in children but are prone to end in nonunion with irreparable loss of bone. It is astonishing to observe the extent to which growing bones will compensate for shortening, bowing and even lack of apposition. The exception that proves the general rule for nonoperative treatment of fractures in childhood is fractures of the condyles of the humerus. These should be exposed, replaced and fastened in place. Fractures of the radial head in children should not be treated by excision but occasionally require an open approach for repositioning.

In addition to children's fractures there are several adult fractures which should never be openly reduced. These are fractures of the pelvis, scapula, clavicle, phalanges of the hand and foot, and early fractures of the carpal scaphoid. Even though considerable displacement may necessarily persist in fractures of the pelvis and scapula, nevertheless as good or better results are obtained by closed reduction and the serious risk of infection is avoided. Even when clavicular fractures heal with displacement and overriding, nonunion or dysfunction is so rare that open procedures are justifiable only if the fragments have penetrated some of the underlying nerve trunk. Moreover, nonunion of the clavicle is frequently caused by meddlesome surgery, the use of metal fixation and an unusually high incidence of infection. Phalangeal fractures can always be repositioned well enough by closed procedures to give good functional results. Open reductions invariably result in excessive callus and adhesions along tendons that seriously impair joint motion. The best results of treatment of fractures of the carpal scaphoid have followed early closed reduction followed by adequate immobilization in a well fitted plaster wristlet for three to six months.

REFERENCES

1. Key, J. A. and Conwell, H. E.: The Management of Fractures, Dislocations and Sprains. Ed. 3, St. Louis, C. V. Mosby Co., 1942, pp. 96.

2. Bohler, L.: Treatment of Fractures. 4th English edition, Baltimore, William Wood & Co., 1936, pp. 84.

3. Speed, K.: Fractures and Dislocations. Ed. 4, Philadelphia, Lea & Febiger, 1942, pp. 57.

4. Blount, W. P.; Shaefer, A. A., and Fox, G. W.: Fractures of the Femur in Children. South. M. J. 37:481-493 (Sept.), 1944.

Carcinoma of the Prostate—Fundamentals of Present Day Treatment

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With minor reservations, it may be said that cancer of the prostate lends itself to palliation more readily than cancer elsewhere. By reason of the average slow rate of growth of cancer in this region, this statement was true, although to a lesser degree, even before the advent of transurethral resection and before the important contribution of Huggins, et al(1) proving actual "regression" of both primary growth and metastases resulting from a decrease in the amount of androgenic hormone. These two contributions, the one providing relief from mechanical obstruction, and the other remission of nerve root pain offered methods of symptomatic relief to prostatic carcinoma sufferers hitherto not available. It should be recalled however, that years before the resectoscope was available a fair percentage of these sufferers experienced relative comfort, sometimes extending over a period of years following surgical exposure via the perineal route and removal merely of the obstructing portion without any effort toward complete excision.

Whereas with benign prostatic obstruction we continue to believe in careful selection of cases in deciding between transurethral resection and open perineal enucleation (Davis(2)), we consider the transurethral route by all means the method of choice in all cases of malignant prostatic obstruction excepting those few diagnosed sufficiently early to permit Young's complete radical excision. The resectoscope is no longer a novelty and those only fairly well versed in current medical literature are familiar with the advantages and limitations of this method. Many clinical reports from reliable sources have likewise appeared in the literature substantiating Huggins' observations as to "regression" and symptomatic relief following measures (orchiectomy and administration of estrogenic hormone) directed toward decreasing the amount of androgenic hormone. No authors claim cures, but the consensus indicates remission of symptoms in a large percentage of cases for varying periods of time, often extending into years. Since reports on this subject, with the usual distortion and exaggeration, have appeared in popular lay publications, this method of therapy is familiar to the general public as well as to the profession.

Although these effective palliative measures are available, the mere diagnosis of carcinoma of the prostate is not in itself sufficient to justify routine treatment of all alike. Pending decision as to the proper method of handling the situation in any one patient, each deserves complete investigation; including general physical examination, rectal palpation, tests for residual urine, x-ray films of the chest lumbar, spine and pelvis, cystoscopic examination, and tests of renal function, as well as consideration of age, general physical condition, subjective symptoms, and social status.

Rectal palpation alone serves to divide all prostatic carcinoma patients into two main groups upon the basis of whether an attempt at complete excision is or is not worth consideration. The first of these groups, much the smaller, includes only the occasional early case in which rectal palpation indicates that the growth is well confined within the prostatic capsule. Under such circumstances, and in the absence of evidence of metastases, a reasonable prospect of cure is offered following Young's complete radical operation, including excision of the entire prostate with its capsule, together with bladder neck, internal sphincter, seminal vesicles, and ampullae, followed by anastomosis of the bladder neck to the membranous urethra. This operation is a prostatectomy in the true sense of the word, as contrasted with the ordinary prostate operation, whether via the perineal or suprapubic route, which consist merely of an enucleation of obstructing lobes, leaving glandular and fibrous capsules in situ. Unfortunately, too few prostatic carcinomas are discovered sufficiently early to permit complete excision, for the simple reason that the small growth is usually without symptoms.

The available methods of treatment of advanced prostatic carcinoma, include chiefly transurethral resection and "androgen deprivation," either by orchiectomy or administration of estrogenic hormone. Deep x-ray therapy, interval catheterization, and suprapubic cystostomy are methods that have been used through the years in patients with far advanced prostatic carcinoma, but it is generally recognized that these methods are relatively ineffectual in relieving suffering as the disease progresses.

Mechanical obstructive symptoms or the presence of residual urine, whether or not there be metastases, constitute definite indication for transurethral resection and orchiectomy. The former may relieve obstructive symptoms for varying periods of time up to several years and may be repeated as often as necessary. With severe obstructive symptoms, where repeated resection is not feasible, suprapubic cystostomy may afford palliative relief. In the presence of nerve root pains orchiectomy often affords relief with promptness bordering on the dramatic. It should be mentioned that the term orchiectomy, as here employed and as distinguished from castration, refers to the removal merely of the parenchymatous portion of the testicle, leaving in situ the tunica albuginea, epididymis and cord, which together comprise a surprisingly "respectable" mass. In the absence of obstructive symptoms or residual urine there is clearly no indication for transurethral resection. Under these circumstances, orchiectomy alone is the treatment of choice, particularly in the presence of back, hip, or leg pains. With recurrence of obstructive symptoms or nerve root pains following orchiectomy alone, or orchiectomy and resection, we favor re-resection and the administration of estrogenic hormone for the former and estrogenic hormone alone if there are no obstructive symptoms.

At this early stage of evaluation, there is not complete unanimity of opinion as to the merits and disadvantages of orchiectomy versus estrogen therapy. Whereas some advocate the simultaneous employment of both measures concurrently, consensus favors employment of the former, reserving the latter against future necessity.

With asymptomatic and non-obstructive advanced prostatic carcinoma the question as to the advisability of orchiectomy as a prophylactic measure, carried out with a view to postponing or preventing the evil day, is perhaps debatable. In the light of present knowledge we favor this course because of the established truth that androgen deprivation causes remission of carcinogenic activity.

It should be mentioned that we have not observed any evidence of psychic trauma from orchiectomy or estrogenic therapy. The so-called "male climacteric" symptoms, popularized by certain pharmaceutical houses, have not appeared, to our knowledge, in any of our patients. Tingling and enlargement of the breasts, as well as nausea and vomiting have been observed in patients nearing their tolerance of estrogens. These symptoms are easily controlled by decreasing the dosage of estrogenic hormone.

When all methods of palliation, including both orchiectomy and estrogenic hormone therapy have failed to produce relief from severe back, hip, or leg pains; or bladder spasms, we have found the intraspinal administration of absolute alcohol, according to the technique described by Barringer(3) to be of great help in the control of such intense suffering. This procedure carries some risk of motor paralysis of the lower extremities, but in far advanced, bedfast (or nearly so) prostatic carcinoma sufferers, whose only desire is some degree of comfort, the desirable effects of the method far outweigh the risk.

Considering that we are dealing with malignancy, the results of treatment in general may be said to be gratifying, both with respect to cure and to successful palliation. This statement must be made with reservation, however, because of the very limited number of cases suitable for complete excision, and because, even with successful palliation, there comes a day of reckoning when there is no longer any method by which the carcinogenic activity may be suppressed. Moreover in a certain percentage of cases, the growth is rapidly progressive, and without symptomatic response to treatment.

Although the word "cure" should be employed with caution, Young(4) reported a series of 38 patients followed from 5 to 27 years after the complete radical operation without evidence of recurrence, and Lewis(5) reported 50% of 5 year cures in a series totaling 115. Belt's(6) series included 58% of cures in a series totaling 50 in the past 20 years. Our series includes only eight patients since 1939, all of whom survived the operation and all who are at present alive, without evidence of new-growth, except one who died of metastatic prostatic carcinoma four years after prostatectomy. These results, whether cures or not, compare favorably with Bumpus'(7) figure of 31 months as being the average duration of life (after diagnosis) of untreated prostatic carcinoma, and Hager and Hoffman's(8) report of 47% dead in the first year after diagnosis.

Results of treatment of patients with prostatic carcinoma advanced beyond the hope of complete excision may be classified as:

1. Complete Failure. Orchiectomy and estrogenic hormone without effect on progress of the disease.

2. Partial Failure. Temporary remission of symptoms as measured by months, by orchiectomy and, or estrogenic hormone, with or without transurethral resection.

3. Satisfactory Palliation. Complete remission of symptoms as measured by years; increase in appetite, improved sense of well-being, increase in energy, relief of metastatic pain, relief of urinary obstruction, decrease in urinary infection, regression of x-ray evidence of metastasis, softening and shrinking of the prostate itself, and decrease in acid phosphatase.

Any method of treatment that offers the patient a prolonged comfortable life, even if not a cure, is worthy of consideration. With respect to palliation in advanced cases our own observations upon ninety-six patients treated by orchiectomy and transurethral resection since June, 1942, lead to the inescapable conclusion that these methods hold promise of a far more comfortable and longer existence than is afforded by any other known method of treatment.

SUMMARY

Cure of prostatic cancer by complete radical excision is feasible in the occasional selected case. Successful palliation, with remission of symptoms of advanced prostatic cancer in a large percentage of cases, is possible by means of orchiectomy and transurethral resection, supplemented by estrogenic hormone.

BIBLIOGRAHY

1. Huggins, C.; Stevens, R. E., and Hodges, C. V.: Studies on Prostatic Cancer II. The Effect of Castration on Advanced Carcinoma of the Prostate Gland. Arch. of Surg., 43: 209-223, (Aug.) 1941.

2. Davis, Edwin: Prostatectomy or Transurethral Prostatic Resection? A Plea for the Selectionist. J.A.M.A., 112: 681-687, (Febr. 25) 1939.

3. Barringer, B. S.: Method of Intraspinal Injection of Alcohol, (Discussion). Trans. Amer. G-U Surg., 34: 275, 1941.

4. Young, H. H.: The Cure of Cancer of the Prostate by Radical Perineal Prostatectomy (Prostato-Seminal Vesiculectomy): History, Literature, and Statistics of Young's Operation. J. Urol., 53: 188-252, (Jan.) 1945.

5. Lewis, Lloyd: Carcinoma of the Prostate. Young's Radical Perineal Prostatectomy., J. Urol., 47: 302-305, (March) 1942.

6. Belt, Elmer: Radical Perineal Prostatectomy in Early Carcinoma of the Prostate. J. Urol., 48: 287-297, (Sept.) 1942.

7. Bumpus, H. C., Jr.: Clinical Study of 1,000 Cases of Carcinoma of the Prostate. Surg. Gyn. and Obst., 43: 150-155, (Aug.) 1926.

8. Hager, B. H., and Hoffman, E. I.: Statistical Data on 396 Cases of Carcinoma of the Prostate Observed at the Los Angeles General Hospital from 1923 to 1936. J. Urol., 37: 180-185, (Jan.) 1937.

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SUBSTANCES PLACED ON BODY SURFACE NEED MORE STUDY, JOURNAL SAYS

Referring to cases of poisoning associated with the use of thioglycolic acid in the so-called cold wave process for permanent waving of the hair, the June 29 issue of The Journal of the American Medical Association says editorially that "as much careful evidence needs to be accumulated regarding the safety of substances placed on the surface of the body as those taken into its interior before these processes are released for use to the general public."

The statement was made in connection with an article in which Carey P. McCord, M.D., of Detroit, called attention to certain facts which he believed were overlooked by Lawrence H. Cotter, M.D., of New York, in his discussion of the cold wave process in The Journal of June 15. Dr. McCord believes that damage to the liver by the use of cold wave chemicals has not yet been definitely shown in any instance and that allergic responses are infrequent when materials used are properly prepared.

"Not withstanding these statements," the latest issue of The Journal says, "the fact remains that some 50 different commercial agencies are engaged in the manufacture of materials used in cold wave processes, that there exist no definite standards as to what is safe or harmful, that experimentation before launching such products is for the most part inadequate and incomplete and that it is time for public recognition of the fact that as much careful evidence needs to be accumulated regarding the safety of substances placed on the surface of the body as those taken into its interior before these preparations are released for use to the general public."

Nebraska Medical Service*

Arthur J. Offerman, Omaha

I have some guests here that I would like to introduce. The first gentleman will be Mr. Jack Pfeiffer, who is the Executive Director of the Nebraska Medical Service and Nebraska Blue Cross Plan.

Next is Mr. Landis, who is the Assistant State Director in the Insurance Department.

Next I would like to introduce Mr. Terry Ashton, our Field Director. He is the man who has done such an excellent job in distributing Nebraska Medical Service and Blue Cross, particularly over the western part of the State to the wide open spaces. Mr. Ashton has been instrumental in helping us carry out our original research project in the distribution of medical care through the rural areas and I am going to call on Mr. Ashton later on to explain the details of that phase of the Service.

I am very gratified to tell you that Nebraska Medical Service is a tremendous success and its future expansion and increased service to the people of Nebraska is assured. We have learned from our first year and a half of operation that we are fundamentally right and that we are actuarially sound. We have enrolled more than 11,000 persons. We have achieved an efficient, solvent, smooth-functioning organization closely integrated with the Blue Cross. Nebraska Medical Service and the Blue Cross have much in common and naturally supplement each other.

Due to the rapid development and expansion of our plan to include in-hospital medical care, we have outgrown our former name, Nebraska Surgical Plan, so the Board of Directors changed the name to "Nebraska Medical Service" on April 15, 1946. We think our new name is more descriptive of the work we are attempting to do, namely, to bring more and better medical service to the people of Nebraska.

At this time we might ask ourselves, What is a pre-payment medical care plan? The answer is very simple. It is merely an organization that enrolls the subscribers, collects the assessments, and pays the benefits. Again we might ask ourselves some other pertinent questions:

Are these pre-payment medical care plans in the public interest?

Are these plans good for our patients?

Are these plans good for the medical profession?

The answer to these questions is YES.

How was Nebraska Medical Service developed?

In November, 1943, the Omaha-Douglas County Medical Society appointed a committee to study pre-payment medical care plans. On June 4, 1944, this committee presented the Nebraska Medical Service for approval. The approval was granted. November 1, 1944, the plan was placed in operation in Douglas County only. May 8, 1945, the Nebraska State Medical Association, at a meeting of its House of Delegates, unanimously approved the Nebraska Medical Service for Statewide distribution.

On December 5, 1945, the House of Delegates of the A.M.A. approved pre-payment medical care plans as a part of its national voluntary health program. I call your attention to the Journal of the A.M.A. of March 9, 1946, page 641, and I urgently request that you read this 10-point program very carefully particularly paragraphs 5, 6 and 7.

Your Past President and your speaker had the pleasure of making a small contribution to this national health program. A series of conferences were held at A. M. A. Headquarters at Chicago on October 20-21, November 30 and December 1, and on February 12, 1946. As a result of these conferences and discussions, there emerged this national health program.

The House of Delegates of the A. M. A. on December 5, 1945, gave the Board of Trustees a mandate to develop a national plan. On February 14, 1946, the Trustees adopted the aforementioned National Health Program of the A. M. A. The Trustees of the A. M. A. emphasized and reiterated the fact that the responsibility for the success of the pre-payment medical care plans rests on the County and State Societies and upon each individual doctor in his own community.

The A.M.A. now offers a constructive program, particularly in the field of voluntary pre-payment medical care. We have come a long way in the past two years; we have progressed from County to State to National level in a relatively short time.

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*Read before the annual assembly of the Nebraska State Medical Association in Lincoln, May 8, 1946.

On a national level a new independent corporation, Associated Medical Care Plans, will be the vehicle which will carry the load of coordinating and developing reciprocity agreements among the plans. This corporation will join all the plans into a national organization for their mutual benefit; it will compile statistics with special studies of experience and collection and distribution of financial and service data. Consultation and information services will be available to existing plans and to plans in the process of formation.

It will develop a national enrollment procedure for the benefit of the national employer groups.

Your speaker has the honor of serving as a member of the Commission of Associated Medical Care Plans. This new organization will be closely integrated with the Council of Medical Services of the A.M.A. Nebraska Medical Service is a charter member of the Associated Medical Care Plans. The proposed symbol of approval will probably be a Blue Shield. The Blue Cross is the nationally-known symbol of the hospital service plans and the Blue Shield will be the nationally-known symbol of the medical service plans.

Nebraska Medical Service started as a one-man effort; then it developed into a six-man team and now we are in the Big League and, like a Big League team, we must have a lot of players on the squad. We must have a strong first team and replacements three deep in every position, with good quarterbacking and a lot of good ball carriers.

At this time I would like to pay tribute to the excellent cooperation by the members of the County Medical Societies at Scotts Bluff, Hastings, Falls City, and to Dr. Prentice at Morrill, Dr. Morehouse at Benkelman, for their fine work in enrolling their communities in our pre-payment plans.

I would like to mention a few members of this Society who have done a fine job: Dr. Charles McMartin, Dr. Floyd Rogers; Dr. A. L. Cooper, now deceased, all did a marvelous job in developing these plans.

We are living in a changing world and we in the medical profession are faced with many changes, particularly in the field of medical social economics. We doctors have been interested too long in the scientific side of the practice of medicine and have neglected the economic phases of our profession. This condition must be changed now. We must study these economic changes that are coming, we must give these problems the considerate thought which they deserve. We must be as diligent in the study of the economic problems as we are in the study of the new scientific angles that are being presented to us.

We must select capable men to carry on this pre-payment medical care program; we must select men who are capable and willing to work. This task requires young men and it should appeal to the man who has just lately returned from service in the armed forces of his country where he has had close contact with mass medicine and regimentation. These young men have the enthusiasm and the punch it takes to put this program over. There are many young men available to do this work, there are many men who want to do some constructive work in medical organization.

Here is a program that is really constructive and will pay rewards in gratification for a good job well done. If you would like to take part in this work, just drop a line to Nebraska Medical Service and we will do the rest. We need youth, vigor and enthusiasm to continue and enhance our program.

Members of the medical profession must realize that this plan must not be allowed to fail for lack of proper understanding or support or selfishness on the part of the doctors. Doctors must now think, "What can I do to help Nebraska Medical Service?" rather than "What can I get out of Nebraska Medical Service?"

If this State's plan and its affiliated plans are successful, we will have a powerful weapon to fight State socialism in medicine and there is an old adage that was never more true than today that says "You can't beat something with nothing."

Several Councillor Districts have not taken any active part in this program to date.

Nebraska Medical Service is group insurance and is available to employed and self-employed groups and their dependents. Many people have asked me why this can't be sold to individuals. There is too great a risk in enrolling individuals in this type of service and we cannot run the risk of failure. This plan must succeed; it will succeed on a group basis, and when we have sufficient experience, financial background, and enough reserves, then we can think of enrolling individuals.

Nebraska Medical Service now offers six types of medical care benefits: Surgical, obstetrical, in-hospital medical care, pathological, x-ray, and anesthesia.

The in-hospital care program is the latest addition to our Certificate and provides for the treatment in hospitals of any acute illness such as acute respiratory diseases, cardio-renal vascular disturbances and other medical afflictions. It will provide an indemnity of $3 per day up to 21 days annually for each enrolled individual and each dependent; it will provide up to $20 per annum for each individual diagnostic x-ray while confined to a hospital; it will provide electrocardiograph and basal metabolism tests. The plan is the answer to the needs of the lower income groups and is particularly directed to the lower income groups to underwrite the costs in part or in full for unusual, unexpected or emergency illnesses. The plan indemnifies the employed individual and all his dependents whether they number three or ten. It is an economical method of budgeting the costs of medical care.

It is the opinion of the Directors of Nebraska Medical Service that this plan will extend more and better medical care to many persons who find difficulty in meeting the bills for unusual or emergency illnesses. It also provides benefits for x-ray diagnosis in accident cases; it provides benefits for x-ray and radium treatments for cancer; it provides for the treatment of many (50 or more) minor operative procedures outside of a hospital, in the doctor's office, such as minor lacerations, incision of superficial abscesses, the diagnosis and treatment of many fractures such as Colles, Potts, etc. 75% of all the medical services rendered by doctors in the general practice of medicine and approximately 75% of the dollars paid out by the Nebraska Medical Service are paid to the general practitioner.

For 50c a week an individual and for $1.08 a week a family can now budget its hospital and medical bills for major illnesses and many minor accidents. The only medical costs not indemnified are office visits and house calls. This is like the $50 deductible automobile indemnity in which the owner assumes most of the small items of expense and the indemnity corporation will reimburse him for the large items of expense.

This plan must have the active interest and the whole-hearted support of the entire membership of the State Medical Association if it is to succeed. Passive acceptance will not be satisfactory; active participation is absolutely necessary. The members of ths Society must now recognize their opportunity and accept their responsibility if this plan is to expand to its fullest possibilities of service to our patients.

There is a natural law which says that "Every right and privilege carries with it its commensurate responsibility". If you neglect the responsibility, you will certainly lose the privilege. I say to you as members of the medical profession that it is our responsibility to provide the highest quality of medical care and to make an adequate attempt to see that it is properly distributed. It is also our responsibility today to formulate plans that will make it possible for our patients to budget the costs of high-quality medical care. If we fail to recognize this opportunity and fail to accept our responsibility in this matter, we may be sure that some social planners and politicians will do this for us in a manner that will not be to our liking.

The proposed Wagner-Murray-Dingell bill, the bill to provide political State Medicine for the United States, would be bad both for the person who is sick and for the practicing physician, for the following reasons:

Good medical care must have three qualities: It must be personal; it must be voluntary; it must have incentive.

Political domination of the practice of medicine would remove all three of these necessary features. Compulsion would be introduced and regimentation of the medical profession would be established. Personal relationship between patient and physician would be lost. The patient would no longer enjoy the right and the privilege of free choice of physician.

The loss of the freedom of choice of physician was admitted by Mr. A. J. Altmeyer, Director of the Social Security Board, in the recent hearings before a Senate Committee on Education and Labor. Mr. Altmeyer is one of the strongest advocates of compulsory sickness insurance and he admitted on the witness stand that there would be no freedom of choice of physician under the bill.

The Surgeon General of the Public Health Service would be a medical czar with absolute power over patient and physician in the matter of medical care and the amount and the extent of such care. There would be little incentive for the doctor to increase his skill or proficiency in his particular field of medicine; initiative would be discouraged, as the system and method of practice would be strictly regimented and would have to be adjusted to the fiscal budget of any particular year.

Compulsory plans are anchored to financial, administrative and political considerations to which the quality of medical service must be made to conform. Compulsory plans are imposed by forcible revolution, fixed by law and changeable only through political pressure. The vested interests which they create and protect are those of partisan politics. The health of the people and the progress of the medical arts and sciences seem to be secondary to administrative considerations notwithstanding the protest and statements of legislators that they are concerned only with the delivery of medical service.

Had they been sincerely concerned with maintaining the present high quality of medical service, they would have consulted with the representative doctors who are actually in the practice of medicine, daily treating the sick, as to the best possible technic by which the desirable objectives could be secured. If State socialism can be forced upon the people and the medical profession at this time the other professions and pursuits of livelihood can look forward to early regimentation and State socialism.

The doctrine of a strong central government has been preached in these United States for the last decade. The doctrine that has been preached is as follows:

"I am a strong centralized government.

"I will accept all of your responsibilities.

"I will educate your children.

"I will provide for unemployment and old age.

"I will provide for all your medical and hospital care.

"I will provide for you security from the womb to the tomb.

"I will accept all of your responsibilities and you may retain your privileges."

Let us not accept such a foolish doctrine because it is a direct violation of the natural law, and I say to you that if we let a strong centralized government accept all of our responsibilities, we may expect to lose our liberty and privileges.

Doctors of Medicine have developed Nebraska Medical Service and Doctors of Medicine control Nebraska Medical Service through the action of the House of Delegates of the Nebraska State Medical Association. The House of Delegates has the power to name the Doctors of Medicine who are to be elected to the Board of Directors. The Directors recognize that there are some imperfections in the Certificate of the Nebraska Medical Service and that time and experience will be required to rectify these inadequacies.

The schedule of benefits has been liberalized and revised upwards so that the Directors now feel that the schedule of indemnities is adequate, and that the indemnities may be accepted as payment in full for services rendered to the members of the low income group.

The members of this Association must inform themselves of the provisions stipulated in the contract of the Nebraska Medical Service; particularly they must understand that there is a waiting period of six months for most of the elective operations. These waiting periods are necessary at this time to insure our financial stability and when a sufficient amount of surplus has been accumulated, these waiting periods will be entirely eliminated.

Doctors of Medicine, by voluntary action, have set up standards in medical education by regulations enacted through their national societies and associations; doctors of medicine have set up high standards of medical practice and ethical conduct by writing Medical Practice Acts and having legislatures enact them into laws; doctors of medicine, by sponsoring and developing pre-payment medical care plans, can control the economics and the quality of the practice of medicine.

The battle is now on. Who will gain control of the vast fields of medical education and medical practice—the politician or the physician? There is yet time to win this battle!

My good friend Earle Johnson recently returned from Washington. He told me that he had breakfast with the members of the Nebraska delegation, our Senators and our Congressmen—and they think the Wagner-Murray-Dingell bill will be reported out of committee and that it probably will pass the Senate but they think probably it will not pass Congress. So we have a little more time.

1946 is the year of decision for the medical profession in these United States. Medicine today faces the greatest crisis it has ever known. If we lose this fight, medicine will be taken down that dark road of State socialism and will wind up in the abyss of Totalitarianism. If we win this fight, we will continue along that bright highway of private enterprise that leads to bigger and better things in medical education, medical research and medical practice.

There are two large groups of individuals who need our especial attention, namely: the low income group and the veterans' group. The veterans' group will be taken care of according to the resolution of the House of Delegates that was enacted at this meeting, and the State Planning Committee has a meeting with Dr. Hawley this afternoon to go over some of the details of this and see if a contract can be developed very shortly that probably will be taken to Washington to be signed by the Veterans' Administration and to be signed by the officers of our State Society by the mandate of the action of the House of Delegates.

We propose to take care of the veterans in that way and take care of people through the Nebraska Medical Service and the Nebraska Blue Cross. So we can take care of the low income groups and the veterans through our Society.

The low income groups and the white collar class find themselves in a difficult economic position in these days of greatly increased costs for the necessities of life. Reliable agencies have reported that the cost of living has risen about 40%, with the result that these people will find it increasingly difficult to pay for their hospital and medical care out of their present earnings after they have paid for their food, shelter and clothing.

Modern, high-quality medical care has of necessity also increased in cost. Reliable surveys reveal that the great number of people are deeply appreciative of the fine quality of medical care now available from the physicians of their choice and that they want freedom of choice of physician in time of illness, and that they want to participate in pre-payment plans for medical services and hospital care to pay for the costs of services of physicians and hospitals. These low income groups are seeking health security, and this health security can be provided by voluntary pre-payment plans.

Nebraska Medical Service was set up on an indemnity basis because it was the easiest, shortest possible method to get a prepayment plan in operation. There are two methods of operating pre-payment medical plans: The indemnity plan, and the service plan. Nebraska Medical Service is an example of the Indemnity Plan. Here the corporation's payment is applied toward the cost of the physician's charges and there are no special arrangements for the low income subscribers.

However, the fee schedule allowances in the Nebraska Medical Service are adequate to fully meet the professional charges to those in the lower income brackets. This has been our experience in Nebraska Medical Service in the 380 claims which have been paid up to date. We believe that in more than 90% of the cases the fee stipulated in the schedule of indemnities has been accepted by the attending physicians as payment in full for services rendered to the low income group.

The Service Plan is the method under which the participating physicians have agreed to accept the corporation's schedule of benefits as payment in full for the services provided. Service benefits are generally restricted to the enrollees in the lower income brackets. These income limits are based on gross income and the number of dependents.

A participant whose income is in excess of the stipulated limit may be charged an additional amount by the physician. Inasmuch as Nebraska Medical Service is now in practice, working on a service basis, it would be a tremendous advantage in the enrollment of these low income groups if our representative could assure the members of the low income groups that the schedule of indemnities would be accepted by the members of this Association as payment in full for services rendered. It would give them the health security which they so earnestly desire. The Certificate of Nebraska Medical Service is difficult to sell under our present method of selling; it is necessary that we enroll a high percentage of the low income groups quickly for time is definitely a factor.

On December 2, 1945, I spent an unhappy half hour listening to Mr. A. J. Altmeyer talk very earnestly in favor of Compulsory Health Insurance. As I said, Mr. Altmeyer is the Director of the Social Security Agency. He and his associates, Isidor Falk, Michael Davis and many others, are sincerely convinced that the passage of a law is all that is necessary to bring good medical care to the American people. They are convinced that this law must be on a compulsory basis.

We who are advocating voluntary pre-payment medical care plans must effect enrollments of large percentages of the low income groups if we are to prove our contention that good medical care can be brought to these groups on a voluntary basis. The experience in Michigan, Missouri and Colorado conclusively proves that the dollar income to the medical profession from these low income groups is greater under the pre-payment plan than it is under the present method of practice without pre-payment plan.

Public relations is a very important topic today and the members of the medical profession should recognize the fact that good public relations are extraordinarily important at this time. The public relations between the individual physician and his patients are excellent; public relations between groups of organized medicine and the great mass of the people are in need of much improvement. Much considerate thought and good advice from public relations experts should be obtained.

There are several means available to improve our public relations, namely: Through County Societies at a local level, public meetings sponsored by the County Societies where matters of health and health topics and even medical economics would be properly presented by representatives of the Medical Societies and the Hospital Associations;

Radio programs with transcriptions and radio talks sponsored by the Medical Society;

Proper contacts with local newspapers in order that the views of organized medicine may be properly presented to the public,

And last and most important, the rapid development of voluntary pre-payment medical care plans, for in truth good public relations consists not in the utterance of words but in the performance of good deeds well done.

DISCUSSION

MR TERRY ASHTON: One of the difficult problems we are faced with particularly, in distributing this medical care to the people is through the very foundation that makes these plans successful, namely: the grouping method, and to those doctors who are out in the rural areas I say I think you can appreciate the fact that grouping of some of these good people is pretty difficult.

How successfully that has been accomplished can be demonstrated in several instances. In one instance the hospital area, at Benkelman, in Dundee County, is typical of a rural area—a very small town and in a sort of mediocre county from the standpoint of population, and with the people living great distances apart.

This was accomplished by grouping, through the cooperation of Dr. Morehouse and his associated doctors in Benkelman, in announcing a public meeting of the heads of various business organizations, civic clubs, woman's clubs and farm organizations, projects and extensions clubs. At this meeting voluntary plans were discussed with the people; they were also presented with the terms and the present standing of the compulsory medicine bill.

After the meeting was over, a committee was appointed by the local doctors and these leaders at the meeting and the area divided up into a territory. Dr. Morehouse voluntarily assumed chairmanship of that group, and sent a letter to every boxholder in his hospital area. Inside of three weeks, 95% of that entire hospital area was enrolled in the hospital and the Nebraska Surgical Plan.

If I were distributing orchids, I'd give the most beautiful orchid in my possession to Dr. Morehouse.

To distribute this type of care in the more remote areas where there is not a doctor is a little more difficult because we usually contact the doctors in that particular rural area and through their cooperation and the cooperation of the local hospitals, arrange meetings with school districts in the rural area, church organizations, project clubs, extension clubs, and again secure the objective by getting a cross-section of the people in that particular community.

That was very well illustrated in Lodgepole, Superior, and Alliance, and while I might not be able to think of all of them right now, we have some outstanding communities where that has been achieved.

We also had a very amusing incident in a unique type of campaign up at Thedford.

This is possible through the active cooperation of the Doctors of Medicine and the local hospitals. It is impossible to do without that active cooperation and I think to cite a case illustrating that impossibility is in line.

We had a meeting in Bertrand, Nebraska. It wasn't too successful from the standpoint of the number of people attending the meeting. Inside of a week, all the participants had dropped out and nothing further has been heard from that community. We definitely lost there.

To go into a larger community area, it gives me great pleasure to give a bouquet of orchids to Hastings, and I come from Grand Island, a sister city, so to speak. In Hastings at a meeting of the Adams County Medical Society, 100% attendance was the record of that meeting, the original meeting. After the presentation and explanation of Blue Cross Service and the Nebraska Medical Service Plan, a committee of three men was formed, Dr. Mel Foote, Dr. George Pinney and Dr. Richard Shavers.

This committee proposed and had accepted by the County Medical Society a budget for public relations and publicity work. The committee also proposed and had accepted by the staff of the hospital, acting for the hospital, and by the County Medical Society, a letter to go to every organization in that hospital area.

As a result, today the Adams County area has more participating employers where the employer himself is providing the plan for his people, than any other part of the State of Nebraska.

As a result of that, we are creating and developing more communities with community enrollment in the smaller towns in the Adams County area than any other place in the United States. Ladies and gentlemen, that is answering the problem of how to distribute hospital and medical care the American way. That is cooperation. That is medicine at work, and that is democracy.

V. V. SMRHA, M.D. (Milligan): You want to enroll groups. Would lodges be groups?

MR. JACK PFEIFER: I'd like to answer that question. Frankly, we'd prefer not to enroll lodges. The basis of enrollment in both Blue Cross and Nebraska Medical Service is that the subscriber be employed. Lodge members are not employed. We believe that we can enroll members through places of business, offices, and through other types of organizations better than we can through lodges.

About four years ago we had an opportunity to enroll the membership of the Eagle Lodge in Omaha and our Board of Directors felt it was inadvisable to do so because there is so much overlapping in lodge membership. People are employed in various places, and we'd prefer not to enroll lodges.

However, if we reach 90% to 100% enrollment, we'd seriously consider accepting lodge memberships.

J. B. REDFIELD, M.D. (North Platte): If we should write to the Medical Service Plan for a plan of organization in North Platte, would somebody give it to us? It appears to me that the plan is what all the doctors out there want but there just doesn't seem to be any method by which it is going over very fast. Maybe I'm wrong, Mr. Ashton, about that. Maybe we have a big enrollment there, and I don't know it. I have had three patients in the last two weeks who should have had it.

MR. ASHTON: I don't know the exact figures from your section, Dr. Redfield, but I believe there is a total of about 2,000 to 3,000 people in the North Platte area enrolled.

The next campaign that will be conducted out there will be in the near future and I will assure you we will get a very good cross section then.

One of the difficult things right now that we have to face is lack of adequate manpower. We hope to have an office and a permanent representative in North Platte and one in Scottsbluff, at least. Until that time, it is a little bit slow and long between the time we can get from Hastings to North Platte, as after Hastings there have been about seven requests and so far, besides being Field Director, I am the only field representative out-state in the greater part of out-state Nebraska.

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IN THIS ISSUE

THE question of when to use open reduction is often difficult to decide. To help clarify some of the doubts as to specific indications we present a paper by Dr. Guy Caldwell of Tulane University Medical School. The paper was delivered before the Omaha Mid-West Clinical Society at the last annual sessions. Turn to page........ 313

THE treatment of carcinoma of the prostate has undergone some important changes in the recent past. The fundamentals of present day treatment of this disease are discussed by Drs. L. W. Lee and Edwin Davis of Omaha on page........ 316

MANY members will remember the interesting discussion presented by Dr. Arthur J. Offerman on Nebraska Medical Service. Those who missed this discussion period now have a chance to read it on page........ 319

WE present an interesting paper by Dr. Francis L. Simonds, radiologist at the Immanuel Hospital, Omaha, on the use of various opaque media in x-ray diagnosis. This is another paper read before the 1945 Sessions of the Omaha Mid-West Clinical Society. It is on page........ 326

THROUGH the courtesy of the Journal of the AMA and the Council on Foods and Nutrition we present a resume of the latest knowledge on vitamin deficiencies. This resume represents the consensus of current views on the subject by the highest authorities in the country. Read these views and save the copy for future reference. Turn to page........ 332

Opaque Media in X-ray Diagnosis*

FRANCIS L. SIMONDS, M.D.
Omaha, Nebraska

The use of opaque substances as an aid in x-ray diagnosis has been invaluable. Soon after the discovery of the x-ray Adolph Schmidt used bismuth salts for a motor meal for the visualization of the esophagus, stomach, and colon.

While bismuth salts are still used occasionally, they have been almost entirely supplanted by barium sulphate which, because it is insoluble and hence inert, is free from the possibility of the undesirable reactions sometimes noted when bismuth salts are given in large doses.

By reason of the fact that barium sulphate is administered in very large doses, it is essential that extreme care should be used to select a salt which is free from all toxic impurities. The United States Pharmacopoeia XII prescribes, in addition to the tests for toxic substances and chemical impurities, a test for suspension properties. A barium sulphate to meet this test must of necessity be of a very fine, smooth texture, free from grit or heavy particles. To assure smooth uniform suspension in the various liquid media, it is essential to use a very bulky barium sulphate. Such suspensions afford uniform distribution throughout the alimentary tract and yield roentgenograms satisfactory in contrast, making for reliable interpretations.

The barium meal is essentially a mixture of barium sulphate with a liquid, semi-liquid, or solid vehicle. The choice of vehicle depends upon the kind of observation to be made. For study of the esophagus three types may be used; a thick creamy solution, a thick viscid suspension and a biscuit, cracker, piece of bread or a capsule impregnated with the barium.

Rugar is frequently used. It is a colloidally dispersed barium sulphate mixture, completely standardized in viscosity and surface tension. It is used for sharp and detailed visualization of the rugae and folds of the alimentary tract. Rugar is also excellent for colonic investigation, with or without air insufflation. No preparation is required. It comes ready to administer and one teaspoonful is sufficient to give an outline of the esophagus, stomach and duodenum.

A new product called Skiabaryt, is a flavored mixture of barium sulphate to which tragacanth is added to increase the stability of its suspensions. It is more pleasant to take, and it produces a suspension which lasts for hours and resists dehydration as it passes through the colon.

Gelobarin is a liquid, high in viscosity, palatable barium sulphate which is ready for immediate use. It is produced for those physicians who prefer to use the prepared opaque cream for gastro-intestinal examination. It is more convenient to use than the dry forms and is also a more uniform and stable suspension.

For obtaining a relief picture of the inner mucosa, a thin liquid vehicle should be used in small amounts and should precede the use of the thicker media used for studying the profile changes. A fluid barium outlines the rugae and shows the mucosal pattern pointing the way to areas that should be more closely studied.

The following lesions of the esophagus can be picked up by this method: carcinoma, cardiospasm, diverticula, benign stricture, benign tumor, ulcer and varicosis. For better visualization of the lower end of the esophagus have the patient take a deep breath while drinking. This closes the cardiac opening temporarily and causes the barium to collect. Then as the sphincter relaxes the stream may be seen flowing through it and down along the epicardia.

The temperature of the meal may influence the occurrence of spasms of the esophagus. Hot barium is more palatable to most people and usually passes through without difficulty, while a meal of exactly the same consistency, administered cold or at room temperature, may be delayed indefinitely.

In the study of the stomach the following should be noted: type, outline, tone, peristalsis, spasm, passive movement, gas bubble, mucous membrane, emptying time, pyloric obstruction, ulcer, cancer, tuberculosis, benign tumor, foreign bodies, diaphragmetic hernia, gastrocolic fistula, and other pathological or anomalous conditions. The stomach should be empty in four hours. This makes it necessary to give a preliminary meal four hours before the patient presents himself for the fluoroscopic study or else have him return after four hours without eating in the meantime.

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*Read before the Omaha Mid-West Clinical Society, October, 1945.

In the duodenum, ulcers, primary carcinoma, benign tumor, diverticula, and duodenal delay may be found. If small bowel studies are indicated, the patient should be kept at the office, and films taken hourly until the meal has reached the cecum. If a partial obstruction is suspected, a full meal should never be given but rather a single swallow taken and followed to the point of stoppage. Chronic regional enteritis may be detected by this method.

Whenever there is evidence of pathology in the colon, a barium enema should be given. Among the pathologic conditions that may be detected by this method are: benign and malignant tumors, diverticulosis, colitis and megacolon. The double contrast method assists greatly in making an earlier diagnosis of carcinoma of the colon, in differentiating various types of colitis and particularly for showing multiple diverticula and for the discovery of small polypoid growths and mucosal ulcerations.

X-ray of the gallbladder was introduced in 1923 through the investigations of Graham, Cole, Copher and Moore of the Washington University School of Medicine in St. Louis. Experimentation with numerous phenolphthalein derivatives showed that tetraiodophenolphthalein sodium, now official in the U.S.P. XI, gave the most satisfactory results from the standpoints of visualization of the gallbladder and freedom from reaction.

Originally, radiologists administered this dye intravenously. Because of the dangers of shock and reaction, the intravenous method has been generally abandoned in favor of the oral method, which is just as efficacious and reliable. Many good dyes were developed by the various pharmaceutical houses, and the correct diagnosis reported in from 90 to 98 per cent of the cases.

While iodophenolphthalein has produced reliable contrast studies and has therefore come to be the sole preparation employed for that purpose, it has not been entirely satisfactory because of its several undesirable side effects, notably its laxative action, with an associated tendency toward reverse peristalsis, nausea, and vomiting. Too frequently, also, the substance is not absorbed and remains in the colon, tending to obscure the gallbladder area.

A new medium for gallbladder visualization has been developed in tablet form and is sold commercially under the name of Priodax. This is a compound of a white crystalline powder and contains 51.3% iodine and its chemical structure is not derived from phenolphthalein. Side effects are generally mild or entirely absent. It is much easier for the patient to take and nausea is seldom produced. The diagnostic results from the new tablet form of dye have been equal to those of the older type and at the same time have almost completely eliminated the side effects of nausea, vomiting and diarrhea. It is no longer difficult as it was in the past, to get the patient to repeat the examination. The diagnostic value of this form of opaque media is the same as with tetraiodophenolphthalein compounds.

Another media which is of value in the study of gallbladder function is Hippuran which is used at the operating table or in post-operative studies of the hepatic and common ducts. If the common duct had been obstructed and the surgeon wishes to see if this has been cleared before closing, a small tube may be inserted into the common duct and 10 cc. of this dye may be injected and a film taken at once. If the dye passes readily into the small bowel the obstruction has been cleared. Others prefer to make this study through the T drainage tube subsequent to the operation but before removing the tube. Many times stones lodged in the hepatic or common ducts will be visualized.

Hippuran is the iodine derivative of hippuric acid, normally found in human urine, and contains not less than 34.95% iodine. It is also used in retrograde and intravenous pyelography and cystography. It has been found to produce little or no irritation of the renal pelvis, ureter, or urinary bladder. The oral administration of Hippuran has given fairly satisfactory results, especially in children. Ten grams is dissolved in 75 cc. of simple syrup and films are taken from one to two and a half hours later, the best results showing at ninety minutes.

Many other iodine-containing substances have been developed and among them one of the best known is Diodrast, a solution containing about 50% iodine. It is used largely in excretion urography, retrograde pyelography and venography. It is excreted in relatively high concentration forming dense shadows with good definition of the upper urinary tract and the bladder.

For retrograde pyelography, a 15 or 20 per cent concentration of Skiodan solution is commonly employed. It produces no local or systemic reactions and in this concentration a very good shadow is secured. Furthermore, if a reflux of the drug into the blood stream occurs, a generalized reaction need not be feared as extensive experience has shown that it is well tolerated when injected intravenously.

Neo-iopax offers a stable solution of iodine which is non-irritant and non-toxic. It can be used whenever intravenous or retrograde urography is indicated; also in pyelography and cystography. Good visualization is normally obtained within two to five minutes after injection.

Venography offers a new and wide field of investigation. While not as yet used extensively it offers opportunities for diagnosing the condition of the deep veins of the lower extremity before operation on varicose veins. It has been used in detecting aneurisms and tumors within the skull. Diodrast, Hippuran, Skiodan or Neo-iopax may be used.

Lipiodol is an iodized poppy seed oil with iodine in firm chemical combination. It is prepared in iodine concentrations of 10%, 28% and 40%. It is non-irritating and has a low viscosity. It is used widely in roentgenography of the chest, paranasal sinuses, and sinus and fistula tracts, in hysterosalpinography, sialography and diagnosis of spinal lesions.

Within the tissues it behaves as a bland inert substance, producing little or no reaction. It does not lead to encapsulation or fibrosis. It may be instilled into virtually any body cavity, hollow viscus or tissue, but should never be given intravenously. Absorption time is very slow.

Pantopaque is a recently developed liquid which is used extensively to replace iodized oil for x-ray visualization of the spine and cord. Thoroughly tested and approved, it is recommended for its homogenety, capacity for outlining small lesions at nerve roots, and the fact that it can be almost entirely aspirated at the end of the examination. The small residue left in the spinal canal is non-irritating and has a short absorption time. It is also valuable in hysterosalpinography in gynecologic diagnosis.

Mathieu lists the following conditions in which hysterosalpinography is of value:

1. In detecting patency of non-patency of the tubes.
2. In determination and localization of occlusion of the tubes.
3. In the visualization and orientation of the uterine cavity, including the internal os.
4. In the diagnosis of intra-uterine tumors.
5. In demonstrating other abnormalities of the uterine and tubal cavities (uterine subinvolution, infantile uterus, tubal kinks).
6. In the diagnosis and localization of ectopic pregnancy.
7. As an aid in the diagnosis of abdominal pregnancy.
8. In checking the results of plastic operations on the tubes.
9. In determining whether a tube or the uterus, in the region of the pelvic mass, is or is not an integral part of the mass.
10. As an indication for hysterectomy for fibroids in preference to myomectomy in cases in which the tubes can be shown to be occluded.
11. In the study of dysmenorrhea.
12. In visualization of hyperplasia of the endometrium.
13. As an aid in the diagnosis of adenomyoma.
14. Finally, and by no means a minor consideration, for didactic and academic purposes.

Iodized poppy seed oil is used widely in ophthalmology and otolaryngology. It is valuable in obtaining information about the periocular spaces and tissues. It will determine the patency or impatency of the tear duct or infections of the tear sac. In the paranasal sinuses it shows the presence of granulations, polyps, cysts, tumors, pus pockets, and the thickening of the mucous membrane.

The following indications are listed by Ballon and others for the study of the bronchopulmonary structures.

1. Study of the normal bronchial tree.
2. Deviations of the trachea and bronchial tree.
3. Bronchial stenosis.
4. Pulmonary fistula.
5. Empyema and bronchial fistula.
6. Primary carcinoma of bronchus.
7. Foreign bodies.
8. Bronchiectasis.

The iodized oils are usually dropped into the trachea over the back of the tongue. The patient is placed in a semi reclining position toward the side in which the study is desired. By grasping the tongue and gently pulling it forward and not touching the structures of the mouth or throat with the cannula, the oil may be introduced into the majority of cases without anesthesia. As the oil runs very slowly, considerable time should be allowed to elapse before the films are taken. Films are usually taken in the postero-anterior, oblique and lateral projections and often in the horizontal, as well as upright position.

Brominol is another radiopaque in recent use. It is a brominated olive oil. There are two types, heavy and light. Brominol heavy is suitable for installation into wound sinuses, fistulas, fallopian tubes and into the tracheobronchial tree. Brominol light is a companion product of less than one-tenth the viscosity of Brominol heavy, which renders it more suitable for use in the paranasal sinuses, ureters, seminal vesicles and other structures having small lumens and small outlets. It is not suited for bronchography as it causes too much coughing.

Iodochlorol is an American product of a 27% iodine and 7.5% chlorine in organic combination with a highly refined peanut oil. It may be instilled into any hollow viscus, and is being used routinely in the paranasal sinuses, bronchial tree, uterus and fallopian tubes, empyema cavities, fistulas and soft tissue sinuses.

Thorotrast is a trade name for a colloidal suspension of thorium dioxide. This is a stabilized solution and contains about 25% of throium dioxide. It is designed for radiographic visualization of the liver, spleen and arterial system. It mixes with body fluids in all proportions.

Arthropsin is a 10% solution of disodium salt of tetraioorthosulphobenzoate and is used for arthrographic studies. Its use is for diagnostic purposes in looking for joint mice, outlining cysts, outlining the joint capsule, and seeking confirmation of semilunar injury in the knee joint. The advantages enumerated by Henry Keller are: ease of introduction, minimum irritation following injection, perfect and clear opacity in normal joints and early elimination.

Other good opaque media are available for use in x-ray work. No attempt has been made to name them all. This brief survey is not intended to be a boost for any particular product nor are any brands intentionally omitted. Our object has been to bring to the attention of the reader some of those most commonly used, and to point out ways in which diagnostic opaque media have rendered great assistance in radiographic diagnosis.

BIBLIOGRAPHY

Keller, Henry: A Comparative Evaluation of Skodan, Neoiopax, Hippuran, and Arthropsin Used for Arthrographic Purposes. Medical Record, Jan. 16, 1935.

Robbins, S. A., and Hermanson, Louis: Cholangiography. Surg. Gynec. & Obst., Vol. 62, 684-688, April, 1936.

Hefke, H. W.: Cholecystography with Priodax. Radiol., Vol. 42, No. 3, pages 233-236, March, 1944.

Zax, Emile: Venography of Lower Extremity. Am. J. of Surg., Vol. 49, No. 3, pages 551-553.

Mathieu, Albert: The Value of Hysterosalpingography in Gynecologic Diagnosis. Radio., Vol. 28, No. 4, pages 427-435.

Robinson, Walter W.: Oral Cholecystography. Radio., Vol. 36, No. 2, pages 131-144.

Dimitry, T. J.: Use of Iodized Poppy Seed Oil in Ophthalmology. Arch. of Ophth., Vol. 18, pages 926-932, December, 1937.

Jaches, Leopold, and Swick, Moses: Opaque Media in Urology. Radio., Vol. 23, No. 2, pages 216-222, August, 1934.

Cole, Dean B., and Nalls, Walter L.: Twelve Years Experience with Iodized Oil. Virginia Medical Monthly, June, 1938.

Graham, Evarts A., and Cole, Warren H.: Roentgenologic Examination of the Gallbladder. J.A.M.A., 82: page 613, 1924.

Graham, Cole, Copher, and Moore: Cholecystography—Oral Administration of Sodium Tetraiodophenolphthalein. J.A.M.A., 85, page 953, 1925.

Ballon, D. H.: The Injection of Lipiodol as an Aid in X-ray Diagnosis of Bronchopulmonary Lesions, Including Tuberculosis. Cana. M.A.J., 15:995, October, 1925.

* * *

JOURNAL QUESTIONS POWER OF VITAMIN E TO RELIEVE HEART DISEASE

An editorial appearing in the June 29 issue of The Journal of the American Medical Association challenges the reported miraculous powers of vitamin E in heart disease and states that "far too often of late there has been overemphasis in the popular press on research too fresh from the laboratory and too inadequate as to evidence to permit evaluation."

The Journal article says:

"Announcement in newspapers and particularly in TIME that large doses of vitamin E will bring relief from all common forms of heart disease once again prompts discussion of the manner in which the results of medical research should be brought to the attention of the public. Far too often of late there has been overemphasis in the popular press on research too fresh from the laboratory and too inadequate as to evidence to permit evaluation. The reported discovery of new and almost miraculous powers of vitamin E needs careful evaluation and confirmation because the substance had already been investigated by many competent clinicians and found wanting. Nothing in the known pharmacologic actions of vitamin E would lead one to suspect either a vasodilating action, a myotonic effect or an ability to repair damaged heart muscle in human beings."

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THE PLATFORM OF THE AMERICAN MEDICAL ASSOCIATION

The American Medical Association advocates:

1. The establishment of an agency of federal government under which shall be coordinated and administered all medical and health functions of the federal government exclusive of those of the Army and Navy.

2. The allotment of such funds as the Congress may make available to any state in actual need for the prevention of disease, the promotion of health and the care of the sick on proof of such need.

3. The principle that the care of the public health and the provision of medical service to the sick is primarily a local responsibility.

4. The development of a mechanism for meeting the needs of expansion of preventive medical services with local determination of needs and local control of administration.

5. The extension of medical care for the indigent and the medically indigent with local determination of needs and local control of administration.

6. In the extension of medical services to all the people, the utmost utilization of qualified medical and hospital facilities already established.

7. The continued development of the private practice of medicine, subject to such changes as may be necessary to maintain the quality of medical services and to increase their availability.

8. Expansion of public health and medical services consistent with the American system of democracy.

ANNOUNCEMENTS

CORRESPONDENCE

AMERICAN CONGRESS OF PHYSICAL MEDICINE

The American Congress of Physical Medicine will hold its twenty-fourth annual scientific and clinical session September 4, 5, 6 and 7, inclusive, at the Hotel Pennsylvania in New York. Scientific and clinical sessions will be given each day. All sessions will be open to members of the medical profession in good standing with the American Medical Association. In addition to the scientific sessions, the annual instruction courses will be held September 4, 5 and 6. These courses will be open to physicians and to therapists registered with the American Registry of Physical Therapy Technicians. For information concerning the convention and the instruction course, address the American Congress of Physical Medicine, 30 North Michigan Avenue, Chicago 2, Illinois.

Dr. R. B. Adams
Secretary, Nebraska State Medical Assn.,
Lincoln, Nebraska.

Dear Dr. Adams:

For practical purposes the functions of the Procurement and Assignment Service have been terminated and the activities of the several State offices brought to a close. The success of the program in meeting the needs of the armed forces without sacrificing the civilian population may be attributed directly to the patient and timeless devotion of many State Committees and countless local advisers. Many of these Committeemen and advisers are unknown to the Directing Board, except through the results of their efforts, and it would obviously not be practicable to undertake to communicate with them.

In a recent letter to each State Chairman, I asked that the appreciation of the Directing Board be conveyed to all the State and local representatives whose full cooperation was essential to the ultimate achievement. The Directing Board, at its final meeting on May 17, 1946, resolved that the untiring efforts, kind tolerance, and successful accomplishment of these State Committee members and local advisers be commended to the appropriate professional State Society for suitable recognition by the Society.

I hope you will draw this recommendation to the attention of your Society, and that they will be disposed to afford some such recognition.

Sincerely yours,
FRANK H. LAHEY, M.D.,
Chairman, Directing Board.

AMERICAN BOOK CENTER FOR WAR DEVASTATED LIBRARIES, INC.

During the war, the libraries of half the world were destroyed by the impact of battle and in the fires of hate and fanaticism. Where they were spared physical damage, they were impoverished by isolation. There is an urgent need—now—for the printed materials which are basic to the reconstruction of devastated areas and which can help to remove the intellectual blackout of Europe and the Orient.

The need is so urgent, scientists working in Europe are so handicapped, that surely those of us working near well equipped libraries will be willing to sacrifice the convenience of an "office copy" in order to provide library facilities for less fortunate colleagues. Please give this appeal your personal interest and attention.

There is need for a pooling of resources, for coordinated action so that the devastated libraries of the world may be re-stocked as far as possible. The American Book Center for War Devastated Libraries, Inc., has come into being to meet this need. It is a program that is born of the combined interests of library and educational organizations, of government agencies, and of many other official and non-official bodies in the United States.

The American Book Center is collecting and is shipping abroad scholarly books and periodicals which will be useful in research and necessary in the physical, economic, social and industrial rehabilitation and reconstruction of Europe and the Far East. The Center cannot purchase books and periodicals; it must depend upon gifts from individuals, institutions and organizations.

Medical and scientific books and periodicals constitute the most important type of material needed and it is needed now. We feel sure that the members of your Association will want to help their suffering colleagues in war torn Europe and Asia. Will you not aid us by contacting them in whatever manner you feel most expedient? A letter apprising them of the situation or notices in your society's publications would all be helpful.

WHAT IS NEEDED

Scholarly books published in the last decade in general science and technology, medicine and the allied sciences. dentistry, chemistry, physics, biography, the social sciences, the fine arts and fiction of distinction. Scholarly scientific books will be especially welcome even if not the last edition of a standard work so long as the book has been published in the last decade. Periodicals in any of the above subjects including runs of volumes, single volumes or even single issues. Large quantities of the more usual journals are needed, such as Science, Society of Experimental Biology and Medicine, Journal of the American Medical Association, Surgery, Gynecology and Obstetrics, American Journal of Surgery, New England Journal of Medicine, New York State Medical Journal, Southern Medical Journal, Journal of the Association of American Medical Colleges, American Journal of Public Health and U. S. Public Health Reports Weekly and journals in the special sciences and clinical specialties. If in doubt, send a list of titles available direct to Headquarters before shipping, giving a rough idea of dates and volumes and they will let you know if the material offered meets requirements.

WHAT NOT TO SEND

State journals or journals of purely local interest other than those listed above, old transactions of medical societies, material of ephemeral interest, e.g. Modern Medicine, outdated textbooks and monographs, students' compends, etc., annual reports or local state documents, material of doubtful importance published by commercial firms, school books, books for children or young people, light fiction, material of local interest and popular magazines such as Time, Life, National Geographic, Saturday Evening Post, etc.

HOW TO SHIP

All shipments should be send prepaid via the cheapest means of transportation to the American Book Center, c/o The Library of Congress, Washington 25, D. C. Although the Center hopes that donors will assume the costs of transportation of their materials to Washington, when this is not possible reimbursement will be made upon notification by card or letter of the amount due. The Center cannot accept material which is sent transportation collect. Reimbursement cannot be made for packing or other charges beyond actual transportation costs. When possible, periodicals should be tied together by volumes. It will be helpful if missing issues are noted on incomplete volumes. I hope that many of us will feel that we can make part of our contribution the payment of transportation of material as far as Washington.

Sincerely yours,

EILEEN R. CUNNINGHAM, Chairman,
Division of Medical Literature; American Book Center Joint Committee on Books for Devastated Libraries; Member Representing Medical Library Assn.

NEWS and VIEWS

Drs. A. Ross McIntyre and A. E. Bennett, Omaha, won honorable mention for a scientific exhibit displayed at the AMA Convention at San Francisco. This was one of 14 exhibits to receive honorable mention. There were 800 exhibits.

The Journal welcomes to Nebraska, Dr. Harold C. Lueth, formerly of Chicago, now the Dean of the University of Nebraska College of Medicine.

A student loan fund was established at the University of Nebraska Medical College in honor of Miss Josephine Chamberlain who for many years was superintendent of the dispensary. The fund has been established with the University of Nebraska Foundation. Loans will be available to both medical and nursing students of the College of Medicine who are approved by the student loan committee.

The Journal extends congratulations to Dr. Roy W. Fouts, Omaha, upon his reelection as Speaker of the House of Delegates of the American Medical Association.

A.M.A. COUNCIL ON FOODS AND NUTRITION

VITAMIN DEFICIENCIES: STIGMAS, SYMPTOMS AND THERAPY

The accompanying syllabus is a consensus of current views. Lack of complete information due to continued rapid development of the subject renders certain statements tentative and subject to probable early revision. In presenting this syllabus the Council directs that emphasis be placed on the view that vitamins must never be relied on as a substitute for the regular consumption of an adequate diet.

JAMES R. WILSON, M.D., Secretary.

The stigmas and symptoms associated with deficiency of vitamin A, thiamine, riboflavin, niacin, ascorbic acid, vitamin D and vitamin K are listed in this syllabus together with a statement concerning treatment of each deficiency. Deficiencies of several vitamins, notably biotin, pyridoxine pantothenic acid and vitamin E, are not accompanied by stigmas which can be recognized at present[1]. The subject is in a stage of fluidity and development which probably will necessitate early revision or amplification. Particularly is this true of the diagnosis and treatment of deficiency of folic acid. This vitamin has been prepared in isolated form so recently that its consideration here is omitted. Not many of the stigmas listed are diagnostic of a vitamin deficiency in themselves, but the occurrence of several of these stigmas in association is at least presumptive evidence of some nutritional failure. Vitamin deficiencies commonly encountered in clinical practice are multiple. Scrutiny of the dietary history is indicated in cases in which several of the stigmas listed are present. Due attention should be paid to the well known fact that stresses such as pregnancy, exposure or disease may occasion the development of deficiency states when the diet otherwise might be considered adequate.

Treatment for a deficiency involves administration orally or, if need be, parenterally of large enough doses of the vitamin to be of therapeutic value and continuation of this treatment for long enough periods to assure a satisfactory therapeutic trial. However, since the diagnosis is necessarily presumptive in many instances, exclusive dependence on specific therapy is justified only infrequently, and basic to good treatment in all cases is a diet planned to be adequate nutritionally and assurance that the diet is eaten[2]. The diet is important for the education of the patient and as a means of dispensing factors heretofore not isolated which will be contained in the foods of such a diet. Likewise helpful in treatment because of its content of factors not as yet identified is some good source of the vitamin B complex as a whole. Products such as brewers' yeast or an extract of such yeast, wheat germ, extracts of cereal grasses or of rice bran, crude extract of liver or desiccated liver represent such sources. For a patient who cannot take foods or drugs orally or in whom absorption is poor, crude liver extract may be given intramuscularly or even on occasion it may be diluted with sterile isotonic solution of sodium chloride or dextrose and administered by vein.

STIGMAS SUGGESTING DEFICIENCY OF VITAMIN A

Xerosis of the conjunctiva:
Thickening with loss of transparency, so that only the more superficial vessels of the bulbar conjunctiva are clearly seen, associated with more or less yellow pigmentation, especially along the horizontal meridian of the eyeball; infrequently associated with small foamlike plaques called Bitot's spots.

Papular eruptions of pilosebaceous follicles:
A grater-like feel, which in early stages resembles gooseflesh but, when more fully developed, presents the picture of keratosis pilaris. The extensor surfaces of the arms and thighs and the flexor surfaces of the legs are primarily affected.

Xerosis or asteatosis of the skin:
Dryness, scaliness and crinkling, in extreme cases resembling alligator skin. In early stages the condition is associated with keratosis pilaris but it persists and extends after follicles have disappeared, the body hairs being broken and later lost. All parts of the body are involved, but the skin of the extremities, particularly of the legs, is more severely affected than the skin of the head and the trunk.

Follicular conjunctivitis:
Hypertrophy of the follicles, particularly of the lower eyelids.

Night blindness:
Conspicuous only in cases of advanced, severe deficiency.

Keratomalacia:
Thickening with subsequent ulceration and necrosis of the cornea: present only in most severe and advanced forms of deficiency.

TREATMENT OF VITAMIN A DEFICIENCY

Early deficiency state:
25,000 U. S. P. units of vitamin A twice daily for two months or longer.

More chronic states:
25,000 U. S. P. units of vitamin A two to three times daily for a prolonged period.

STIGMAS SUGGESTING DEFICIENCY OF THIAMINE

Loss of strength of the quadriceps: disproportionate to loss of general strength, evidenced by difficulty in rising from the squatting position.

Loss of vibration sense: first of the toes and later of the malleoli and tibias.

Tenderness of the calves and hyperesthesia of the feet:

Diminution and loss of the achilles tendon and patellar reflexes first. Other tendon reflexes are lost in the later stages of the polyneuritis of "dry beriberi."

Edema of the shins, ankles and knee joints: found in "wet beriberi."

Enlarged heart with dependent edema and elevated venous pressure: Poor response to rest and administration of digitalis unless thiamine is given. This is a late manifestation of severe deficiency (beriberi heart).

Papillary edema with retinal hemorrhages: associated with ophthalmoplegia and polyneuritis. The condition is a late manifestation of severe deficiency.

TREATMENT OF THIAMINE DEFICIENCY

Acute deficiency state:
10 to 20 mg. or more of thiamine twice daily until relief of symptoms; this may be days or weeks.

Chronic deficiency state:
5 to 10 mg. or more of thiamine twice daily for a prolonged period.

STIGMAS SUGGESTING DEFICIENCY OF RIBOFLAVIN

Congestion of the limbic plexus:
Visible with a small hand lens or the +20 lens of the ophthalmoscope; invasion of the cornea by capillaries arising from this plexus (vascularization) requires a biomicroscope and slit lamp for detection.

Cheilosis:
Represented in chronic deficiency by excessive and irregular wrinkling, in acute deficiency by swelling and erasure of the normal wrinkling of the lips. Reddening, thinning, scaling, chapping of epithelium are associated.

TREATMENT OF RIBOFLAVIN DEFICIENCY

Acute deficiency state:
5 mg. of riboflavin three times daily for weeks.

Chronic deficiency state:
3 to 5 mg. of riboflavin three times daily for a prolonged period.

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[1] Handbook of Nutrition: A Symposium Prepared Under the Auspices of the Council on Foods and Nutrition of the American Medical Association, 1943.

[2] Jolliffe, Norman: The Preventive and Therapeutic Use of Vitamins, J.A.M.A. 129:613 (Oct. 27) 1945.

HOSPITAL NEWS

BEATRICE: A program for major improvements is being started at the Lutheran Hospital. The project calls for $23,000.00.

KEARNEY: A $65,000.00 drive for a Lutheran Hospital is taking shape. State Senator Fred A. Mueller is chairman of the finance committee. The hospital will be located in the old military academy building recently used by NYA and the Army.

SCOTTSBLUFF: Catholic Sisters of St. Francis plan to construct a million dollar hospital on a site one-half mile north of Scottsbluff. It will be a 150-bed hospital. Construction will probably start in September.

NEBRASKA HOSPITAL SURVEY

The Nebraska Hospital Survey began its activities in the study of hospital services in the State of Nebraska with the appointment of the study committee of Governor Griswold on May 19th. The following were appointed on the Governor's committee for study of hospital services:

Dr. W. S. Petty, Chairman; Director, State Department of Health.

Mrs. Lorena Hahn, Vice Chairman; State Board of Control.

Mr. M. C. Smith, Secretary; Executive Secretary, Nebraska State Medical Association.

Dr. Ray S. Wycoff, Lexington, Physician and Surgeon Representing Nebraska State Medical Association.

Mr. H. G. Gould, Lincoln, University of Nebraska, Extension Division; Nebraska State Health Planning.

Mr. W. G. Coad, Omaha, President, Omar Baking Co.; Trustee, St. Joseph Hospital, Omaha.

Mrs. Alta Corn Munro, R.N., Kearney; Housewife and Club Woman; Nebraska Nursing Association.

Mr. Robert Whitham, Manager, Lincoln General Hospital; Nebraska Hospital Association.

Dr. D. M. Alderson, M.D., present Assistant Director, Division of M.C.H., was appointed Director of the Survey by the Committee. Two full time field workers will be employed. Miss Amelia Miller, R.N., on leave of absence from Mary Lanning Memorial Hospital, Hastings, Nebr., and Miss Helen Becker, loaned by University of Nebraska, Agricultural Extension Division.

The Nebraska Hospital Study will be conducted under the direction and coordination of the Committee on Hospital Care, a voluntary, non profit, non political group sponsored by the American Hospital Association and financed by the Commonwealth fund, the Kellogg Foundation and the National Foundation for Infantile Paralysis. The purpose of this Committee is to establish uniform techniques and procedures for state surveys; to coordinate the various surveys and findings into a national whole for the analysis of all facilities in the United States for the institutional care of the sick, including general, tuberculosis, nervous and mental, chronic, convalescent and special types of hospitals; nursing homes, rest homes, hospital departments of homes for the aged; and public health centers.

The broad objectives of this study are:

1. To obtain a census of present hospital and public health center facilities.
2. To appraise their capacity for service.
3. To establish standards or criteria relative to physical facilities, organization and management of hospitals.
4. To determine the need for additional facilities and service.
5. To formulate a coordinate hospital plan, and method by which it may be realized.

The study in each state must be done on a state level by persons interested and familiar with state needs and problems. The objectives of the State Study are similar to those on a national level but adapted to a state level.

The nature, scope and importance of the study centers around the hospital and its place within the community. A hospital is a social institution. Its origin and growth is a social process which is conditioned by a wide range of geographic, social and economic factors. Some of the more important of these factors are: population density, distribution and size of urban centers; availability of physicians, nurses and other personnel; the frequency of sickness and other conditions concerning hospitalization, wealth and income; standards of living, educational levels, transportation and communication facilities, and topography. These factors have operated to determine the size of hospital communities, the number of hospital beds, the size of hospitals, and the extent to which hospitals have been used by the public.

Sparsely settled areas have hospital communities large in area but small in population. The results are—small hospitals and high cost of hospitalization; poor areas, in the economic sense, have a low ration of hospital beds to population and a correspondingly low level of hospital use. These two influences—low income and low density—in our rural communities create the most critical aspect of our hospital problem.

History is full of both public and private ventures which have failed because of poor planning. Hospitals are no exception. Many hospitals have failed. Many others are struggling along rendering poor service because of the obstacles in their social and economic environment. Hospitals provide a service to the public and therefore should be developed in accordance with community need. Careful and systematic study of all the facts is essential if, in the future, hospitals are to be properly developed so as to make their services more readily available to all the people.

Completion of the survey and the publishing of recommendations will mark only the beginning of the State Study groups responsibilities. If the hospital is to assume that place in the life of the people which will permit it to be as effective as possible in promoting good public health, a system must be evolved from the present unorganized, disconnected methods of providing hospital care. It is to be hoped that the State Study group, on the basis of its investigation, and in collaboration with government and voluntary agencies, will continue its interest and assist in the adoption and development of the state hospital plan.

It is anticipated that the recommendations of the State Study group will propose the establishment of a coordinated hospital plan and the appointment of a State Hospital board.

It appears desirable that the authoritative body commissioned to administer the state hospital plan be chosen at least in part from the membership of the State Study group. Such assignment would guarantee continuity of planning and would provide an informed, enthusiastic membership to the board which would give meaning and purpose to the project.

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OFFICE OF THE SURGEON GENERAL

RADIO-ACTIVE URANIUM ISOTOPES OPEN UP UNEXPLORED PROCESSES OF LIFE

An "x-ray" of the dynamic processes of living now is available to medical research.

Possibility of obtaining for the first time relatively large amounts of radio-active isotopes through the uranium piles of the Manhattan District brings basic biological investigation to a new frontier, according to a statement by Major General Norman T. Kirk, Surgeon General of the Army, whose office will cooperate in the distribution of the materials to Army Hospitals.

The Surgeon General said requests for these materials should come from accredited research groups or educational institutions and should be directed to Isotopes Branch, Research Division, Manhattan District, P. O. Box "E," Oak Ridge, Tennessee.

Isotopes as tools of medicine have been compared to the microscope and the x-ray, General Kirk pointed out. But these were useful largely for study of the organs of life whereas the isotopes open up the largely unexplored field of the processes of life. It is in this respect, rather than as actual remedies for anything, that the substances are of preeminent importance today.

"Medical scientists," said General Kirk, "would like to know more about how calcium and phosphorus are used in building teeth and in uniting fractures, how iodine is used by the thyroid gland, exactly what happens when one or more of the glands of internal secretion starts malfunctioning, how the process of wound healing is carried out."

Such questions and hundreds of others whose answers now are among the secrets of life wait upon radio-active isotopes for clarification, he pointed out. Elements such as calcium, phosphorus, sulphur, iron and a score of others can be "tagged" with small amounts of the isotopes and followed through the body through their emission of beta and gamma radiation. The latter is the same as x-radiation.

Some of these radio-active isotopes may find a place as specific "medicine," medical officers point out. The most notable example to date is radioactive phosphorus, known chemically as P32. Phosphorus is an important constituent of both bones and blood. It is carried in the blood stream through the entire body. When the radio-active isotope is administered the blood stream is subjected to a radium-like bombardment. Consequently when the isotope was produced first in the cyclotron about seven years ago there were high hopes that it might mark a long advance towards the conquest of leukemia — a cancer-like condition of the blood in which there is an enormous increase in white cells which, however, do not have the ability of ordinary cells of this sort to combat infection. Despite various complications and disappointments, use of P32 now is generally accepted as the treatment of choice for certain forms of leukemia. It brings about long remissions of the disease. It cannot be considered a "cure" for any leukemic condition in the present stage of the therapy but it is admittedly a long step in advance in the treatment of one of the most difficult maladies known to medical science.

The element iodine tends to concentrate in the thyroid gland. Since radio-active iodine behaves exactly the same as ordinary iodine in the body it was logical that it should be tried in malignant growths of the thyroid. Results to date have been somewhat puzzling and inconclusive. The same is true of other radio-active isotopes which have been tested for specific therapy.

But this whole field of medicine still is almost unexplored and physicians naturally are proceeding with great caution until they know more about specific effects and possible complications. Even if all prospects for the therapeutic use of isotopes fail to materialize, General Kirk stressed, the importance of a relatively abundant supply of these materials remains preeminent.

Any element—96 now are known—is a combination of infinitestimably minute elementary particles. Those are protons, each carrying one charge of positive electricity; electrons, each carrying one charge of negative electricity; and neutrons, which are not electrically charged.

The nucleus of an atom is made up of protons, electrons and neutrons. Revolving around the nucleus somewhat as planets revolve around the sun are electrons. There are precisely the same number of electrons revolving around the nucleus as there are protons in the nucleus which are not balanced by nuclear electrons. The number of outer electrons is the atomic number.

But there may be an extra neutron in the nucleus. It weighs precisely as much as a proton. It is electrically neutral. Hence it does not leave room for an extra outer electron. The atomic number remains the same. Element 92, which is uranium, remains uranium so long as there are 92 outer electrons. But with an extra neutron in the nucleus it weighs more. This heavier uranium is known as an isotope. Chemically it acts precisely the same as any other uranium.

For reasons not clearly understood various nuclear combinations are unable to stick together and break up with considerable violence. They then are radio-active, shooting out radiation which can be detected by means of various devices. Chief of these is the so-called Geiger counter. By means of it the presence of radio-active atoms anywhere in the body can be detected. For example, a person is given something containing radio-active copper, by mouth. The counter will enable a physician to follow the course of this copper through the entire process of assimilation by the body.

COUNCIL ON MEDICAL SERVICE AND PUBLIC RELATIONS

MATERNAL AND CHILD WELFARE BILL

The Subcommittee on Aid to the Physically Handicapped of the House Labor Committee held hearings during the last two weeks on three bills, H.R. 3922, Mrs. Norton; H.R. 3994, Kelley; and H.R. 4059, Patterson; which are identical with S. 1318, Pepper—the Maternal and Child Welfare bill which would fix the EMIC program as a part of the established national health program. The Chairman in charge of the hearings is Congressman Augustine Kelley of Pennsylvania.

The first witness to testify was Senator Pepper. He opened his remarks by quoting from the President's Health Message, as follows: "No American child shall come to adult life with diseases and defects which can be prevented or corrected at an early age," and he stated that the National Health Act, S. 1606 contains provisions which, if slightly amended as he has suggested, would provide just such care as the President indicates is desirable.

"Many doctors tell me that often the medical problems they are called on to cure or correct in children have their roots in the social problems of their families with which doctors are not trained to deal. Likewise, social workers, in helping the socially handicapped child, frequently need the help of the medical profession in getting their young charges on their feet. There is the closest kind of relationship between the health and welfare needs of children. Services to meet these needs should be teamed together. The pattern for this close teamwork is well represented in the Children's Bureau itself which, for ten years, has been administering child-health and welfare grants-in-aid to the States under the Social Security Act. The approach which the Children's Bureau makes to the whole child is one of the soundest expressions of government I know."

"There is one distinguishing feature of S. 1318," he said, "which is not contained in the National Health Act; that is, its child welfare provisions."

He quoted the following from a report published by the National Commission on Children in Wartime, whose members come from a wide range of civic, labor, farm, women's and professional organizations: "The health of children, no less than their education, is a public responsibility. If during the coming decades children are to grow to maturity physically and mentally fit, if they are to be able to take advantage of the educational opportunities offered to them, and if they are to assume their position as responsible members of society when they are mature, they must be assured of healthy bodies and healthy minds when they are young."

"The services called for in this bill are no innovation in our Government. They are an extension of programs which have been incubating for ten years under the Social Security Act. It is time now to bring these programs out of their chrysalis stage, and release them for full growth and development."

"State health agencies will be the heart and center of this program, as is true of similar programs under the Social Security Act. Each state will draw up its own plan and work out procedures suited to its special needs. The role of the Federal Government will be to give financial and technical aid. Its authority will be limited to the establishment of standards to assure quality of care and safeguards for the professions. The Children's Bureau and State administrative agencies will be advised by committees made up of professional and public members."

"What this measure will mean to fathers and mothers cannot be overestimated. For many it will bring enormous release of spirit from the terrible frustration of knowing that their children are suffering under physical and social handicaps which they, as parents, cannot cope with alone. All parents want to see their children grow to maturity physically and mentally fit, able to take advantage of educational opportunities, equipped to assume their position as responsible members of society.

When this bill becomes law, they will know that the Nation is backing them up in their efforts to provide good care and insure the development of the full capacities of their children. But no person and no government can remove from parents their primary responsibility for seeing that their children reap the full benefit of the health resources which the community, the States, and the Federal Government make available. That task will always remain their own."

He was followed by Katharine Lenroot, Chief of the Children's Bureau. She devoted most of her time to discussing the different phases of the problem presented by the delinquent child and the government's responsibility. Some quotations from her statement follow:

"The kind of responsibility which we assume for child health and child welfare in the programs now under discussion will affect the way in which they will be able to assume responsibility for tomorrow."

"Just as everyone benefits from the fact that we have public schools, so all people would benefit in some way from public programs which would provide health and medical services for mothers and children, without discrimination because of economic status, race, creed, color or national origin. Furthermore, wherever there is a social problem involving children, it is in the interest of everyone that it be dealt with promptly and constructively for the sake of the child and his personal development, and for the sake of the community which is injured by his delinquency, crime and dependency."

"The economic burden of rearing our children today falls unevenly upon the population. Even in 1941, a year of relatively high income, approximately three out of every five children were living in families with incomes of less than $2,100 a year, and four out of five in families with incomes of less than $3,000."

Under the proposed legislation, Miss Lenroot said it would be possible for each State, with Federal and State funds (and local funds in some instances) to provide services in the public welfare department that would be available whenever a child needed help. The needs of these "socially-handicapped" children would be met through the services of well-qualified child welfare workers who would bring to bear on their problem all the available resources of the community, both public and private. Besides providing for the services of those workers, Federal funds would also be available for strengthening the resources of the community for the care of children in foster homes and for other specified types of care.

"A child may need these services because he is neglected or mistreated, or because his home condition is such that he feels unhappy and unwanted." Services would likewise be available, Miss Lenroot stated, to those left orphaned or deserted; to those who have difficulty getting along in school or with other children; to those who are delinquent and to those who are mentally deficient.

"Children from all economic groups have these problems and many parents want help and advice in dealing with them. Such a service should be available without any stigma or feeling that to receive help from a child-welfare worker is a disgrace in any way."

The Children's Bureau's count of those children who are "socially-handicapped" follows:

Nearly 4,000,000 who have lost one or both parents.

60,000 children known to be orphans of servicemen who died in this war.

More than 80,000 babies who are born out of wedlock each year; and their mothers, almost half of whom are under 20 years of age.

More than 250,000 children a year who are brought into juvenile courts as delinquent and several times that number who come to police attention. Twenty-five thousand of the children who come into juvenile courts are runaways from home; 300,000 children each year are detained over night or longer by police and juvenile courts, many of them in local jails or in poor detention homes.

30,000 children who are in training schools for juvenile delinquents.

800,000 children under 18 years of age who are feebleminded.

Besides, there are the children under 14 whose mothers are working away from home. In 1944, 2,770,000 such women were employed. Many still are at work and others will enter employment.

"The proposed legislation would keep Federal responsibility in the Children's Bureau, thus continuing to make possible general planning and adequate correlation of maternal and child-health and child-welfare services to the end that they may effectively meet the needs of children. Their lives cannot be divided into separate water-tight compartments labeled 'health' and 'welfare.' They must be viewed and served as living, growing human beings."

The third witness was Dr. Martha Eliot. She devoted her time to a discussion of those sections of the bill which provide for grants-in-aid to the states.

"If we are to prevent handicaps, we must begin in the prenatal period to assure that our children will be well born. We must make certain that they have the best health and medical care during infancy and childhood which we know how to provide. If we are to alleviate handicaps and to minimize their effect once they occur, we must begin as soon as the condition develops—during childhood, and not years afterward."

"The State would have to meet certain requirements outlined in the Act to be eligible for Federal financial participation. Under this bill, however, the actual determination of how the program is to be undertaken and what is to be done at any particular time will be the responsibility of the State agency. The rate at which the State plan can be put into effect will depend in large measure upon how fast professional personnel and health and medical facilities can became available."

"The place to begin is with the mother before the child is born. Every mother should be under a doctor's care and should have the help and guidance of a nurse during pregnancy. Prenatal clinics have proved an effective method of bringing this kind of health and medical supervision within reach of mothers. In 1942, however, not only was there no public health nurse in one out of three counties in the United States, but in three out of four rural counties there was no regularly established prenatal clinic. And in 1943, there were 200,000 mothers delivered without any medical supervision at all."

"Let us look a little more closely at the cost of these infant deaths in terms of human values. As of December 31, 1945, there were 281,000 Americans reported to have been killed in action during World War II. These are statistics from the battlefronts, where men faced death daily to win the war. In the same period of time, in the homes of our people where the value of a life could be measured by the affection of the family, 430,000 babies died in their first year. The sacrifice of the lives of a large proportion of these babies is wanton waste. Good health and medical care could have reduced the number materially if we had been alert and planful to see that it was within reach."

She emphasized that in order that the best results should be achieved, all health "services must be accessible to every individual with no economic barriers to their use, or discrimination on account of race, color, creed, national origin, or residence. There must be a sufficient number of trained professional people to make it possible for this kind of service to be made available."

"We believe the needs for training personnel in the field of maternal and child health and crippled children to be about as follows: We now have about 2,500 pediatricians. We estimate that we need at least 7,400. We need probably 5,000 more obstetricians. We ought to have 1,000 more orthopedists. We need 34,000 dentists trained in children's dentistry. We have 19,000 public-health nurses and need 50,000 more. We need at least 15,000 additional graduate nurses for institutional and private duty. We need some 10,000 additional psychiatrists to expand services for children—particularly into areas now without them."

On June 1 Drs. Joseph Wall and Joseph Howard appeared for the American Medical Association. Both men submitted excellent prepared statements.

Dr. Wall devoted his attention to a careful analysis of the provisions of the bill, pointing out their weaknesses and the ultimate state control that they would accomplish. Being a pediatrician, he could speak from experience on those sections which relate to the care of the child. He enumerated the instances where the bill gives specific authority to the Children's Bureau which would violate the individual state's autonomy. He called attention to the fact that the Bureau would have authority for developing an extensive code of regulations for the administration of the Act and these regulations would carry the authority of the law.

In commenting on the absence of a means test in this bill, Dr. Wall pointed out that the Wagner-Murray bill had provided in several places that such tests should be enforced.

In speaking of standards he said: "The State is commanded to construct 'standards for professional personnel rendering medical, dental, nursing, and related types of care or services, such standards to be ESTABLISHED by the State health agency . . .' EMIC and other experiences prove beyond peradventure that the Children's Bureau and not the State agencies have heretofore established such standards for professional personnel and for hospitals, in evidence of which we have quoted above EMIC Circular of Information No. 1 with its array of 'shoulds,' 'musts,' and 'shalls.' This would answer the question Who's Who."

In speaking of remuneration, he said: "The question of adequate remuneration 'for persons and institutions providing medical care and related services.' Who is to establish what is to be considered as 'adequate remuneration?' Past experiences with governmental experimental medical practice indicates that remuneration will be far from adequate and that the fee schedules will be established by bureaucratic edicts which will remain as immutable as the laws of the Medes and Persians and that they will be fixed by remote control almost as distant from some State localities as Iran itself."

Among other conclusions Dr. Wall reached the following:

"S. 1318, as introduced by Senator Pepper, merits the unanimous disapproval of the medical profession, the members of which, obviously, will be commandeered to become the purveyors of medical care to all who will 'embrace the benefits of the program.' Those physicians who do not 'choose' to participate will be left to their own resources to survive or perish, in competition with government practice fortified with the bait of free service dangled before the consumer in the form of a Federal dole."

Dr. Howard, an obstetrician, presented a statement drafted largely from his experiences under the EMIC and studies he made of conditions in other states and countries. He accompanied his statement with a draft which showed that the maternal deaths in the present century reached their peak about 1918 and since then they have been uniformly decreasing with the exception of a slight interruption in 1927. The death rate in the colored race is greater than in the white, but the chart shows that in recent years the decline in the number of deaths is greater in the colored race.

Dr. Howard said: "The United States is a young country. Previous to 1930, the maternal mortality rate remained rather constant in most countries. In 1936 a sharp drop occurred, chiefly in the United States, Switzerland, South Africa, Mexico, Scotland, New Zealand, Eire, Australia, Canada, England and Wales. This may have been due to a wider use of transfusions and the introduction of the sulfa drugs, but strangely enough the reduction was not only evident in cases of infection and hemorrhage, but also in toxemias. This reduction has continued at a more rapid rate in this country than in others.

"It was not until 1933 that all States were included in the Birth Registration Area, and in 1943 the first opportunity was offered to compare births and deaths over a ten-year period. During this ten-year period, maternal mortality declined 60%—from 61.5 deaths per 10,000 live births directly due to pregnancy in 1933 to 24.5 in 1943. No other country has made such progress. These figures are more striking when we realize that in this same period there was an increase in births of 30%.

"The rate for all obstetrical deaths was reduced 60.4% — from infection, 62.6%; from toxemia, 57.8%; from hemorrhage and other causes, 59.9%.

"In 1940 only two states in the United States had maternal mortality rates less than 2.5; in 1942, twenty-nine states had achieved this position. In 1933, Florida had the highest rate—115 per 10,000 live births. Idaho had the lowest—43 per 10,000 live births. In 1943 New Mexico was high with forty-seven which was only slightly higher than the low record of Idaho ten years before—Oregon and Minnesota shared the low record with rates below fifteen. During these ten years every State has shown marked reduction; the smallest being 41% in North Dakota and the largest being 76% in Nevada.***

"This brings us to a point so often stressed by the medical profession that a large part of our medical problems are economic in origin. We are becoming more conscious of the value of proper nutrition during pregnancy. Many studies have been made and results indicate that a properly balanced diet tends to lessen the chances of complications of pregnancy and labor, and assures in many instances, more full-term and healthier babies.

"It was my personal observation during the war that those patients participating in the Emergency Maternity and Infant Care program showed more complications than others. An analysis of approximately five hundred EMIC cases showed twice as many complications as those not in the program."***

"The medical profession is vitally interested in good maternity care for all women. We are proud of the reduction in material mortality in our country, a record not exceeded by any other country. We believe that this reduction will continue under the present system of medical care. We believe that aid should be extended to those states not financially able to carry on an efficient maternal and child health programs.

"We do not believe that services and facilities should be available to all who elect to participate regardless of economic status. We do not believe that authority for such a vast program should be vested in the Chief of the Children's Bureau who would have power to—

1. Veto any state program and cut off Federal aid;

2. Force adoption of Children's Bureau standards of medical care and administration;

3. Establish maximum remuneration for all professional participants."

Among the other witnesses heard on June 7 was Dr. V. A. Getting, Secretary of the Association of State and Territorial Health Officers. Following are some excerpts from his statement:

"The State and Territorial Health Officers are naturally in favor of any legislation which will benefit the public health of the nation. We are, however, concerned that all such legislation should be administered efficiently and effectively in order that the people may derive the maximum benefit consistent with the minimum interference with their normal course of life. For over 75 years state departments of health have been charged with the responsibility of administering programs of public health. The Association, therefore, is in favor in principle of any bill which will ultimately bring about an improvement in public health. The Association, on the other hand, must call to the attention of the Committee shortcomings in these bills which, in its opinion would be detrimental to the health of the people.***

"It is the opinion of the Association of State and Territorial Health Officers that state health departments are not prepared to undertake a medical care program for maternal and child health unless consideration is given to their ability to expand and participate. The Association, therefore, recommends that the bill be modified to permit a gradual development of the program over a period of years, limiting it in the first year to children under one year of age and extending it by the tenth year of operation to include all children up to the age of 18 years. Preventive, diagnostic, school health and related facilities would necessarily be made available to all children.

"The Association of State and Territorial Health Officers has, on numerous occasions, expressed the need for a coordinated federal health program. It has been the experience of the various state health officers that a great deal of duplication exists. Duplicate reports, audits, and other inefficient operative procedures could be eliminated by the unification of the Children's Bureau of the Department of Labor, the U. S. Public Health Service of the Federal Security Agency, and other agencies of the Federal Government dealing with public health, into a single department of public health or of public health and welfare under the direction of a cabinet secretary."

At the end of the day on June 7, the Chairman announced that there would be no further hearings.

NEBRASKA STATE DEPARTMENT OF HEALTH

TRANSMISSION OF CULTURE MATERIAL FOR GONOCOCCUS THROUGH THE MAILS

Considerable attention has been given the subject of gonorrheal cultures recently. The use of modern drugs such as the sulfa drugs and penicillin have increased the difficulty inherent with the slide methods of laboratory examination. In many instances the use of sulfa drugs results in a decrease in the number of polymorphonuclear cells and the tendency of the gonococcus to be ingested. The use of sulfa drugs may be accompanied by abnormally shaped gonococci. Penicillin does not cause an immediate decrease in the amount of pus, but may lead to the relative scarcity of gonococci and thus interfere with the sucessful use of slides.

Cultural methods have not been difficult in instances in which proper care has been exercised in the taking of the specimens and in which the material to be cultured has reached the laboratory within a short time after the cultures were taken. Difficulties, however, have been encountered when the specimen or material to be examined could not reach the laboratory promptly and when the transmission of such material by mail or other delayed method was necessary. Successful results of this sort have been reported by the use of carbondioxide as a freezing reagent, and more recently in the State of New Jersey, by a culture method in which a great deal of the laboratory work was performed at local stations and final identification carried out by a main or central laboratory.

For over a year the laboratory of this department has been experimenting with the transmission of cultures or cultural material through the mail. Most of the results obtained were unsucessful and are not being reported herewith in detail.

Recently a method has given results sufficiently successful so that its use on a statewide basis is considered worth attempting. Directions for the collection and preliminary handling of the specimen follow this discussion. In using this method it should be emphasized that much depends on the physician taking the specimen. A specimen taken carelessly and containing vaginal secretions or other extraneous or contaminating material is doomed to failure—likewise a specimen that has been taken without due regard to the presence of antiseptic substances or medication. Unless a physician is ready and willing to give the preparation and preliminary handling of the culture proper care and attention, his efforts in submitting a specimen will be wasted. If sufficient care is taken in this respect, it is believed that the results would be successful to a degree warranting the effort spent.

In spite of the recent tendency and reports favoring the use of cultural methods, the opinion of this Department is that cultures should be considered as an accessory or adjunct to slides and not as a substitute for them. As cultures are taken, carefully prepared slides from the same case should also be submitted. Many of the reports that have appeared in the literature comparing the results of smears with the results of cultures have shown cultural methods as advantageous. However, in comparing such results, it is our opinion that much depends on the specific methods used and the competence and skill employed. Results, instead of reflecting superiority of cultures over slides or the reverse, may reflect the relative skills of the laboratory making the comparison. Criteria of what constitutes a positive, either of a microscopic examination or of a culture, may vary from laboratory to laboratory. One laboratory for instance, may consider any oxidase positive colony of typical appearance and composed of gram negative micrococci as a positive. Such a laboratory will almost inevitably report a high percentage of "positive" results. Such reports are apt to be especially high in improperly taken cultures from females, a class of specimens with which a laboratory using methods adequate to differentiate the gonococcus from other similar micrococci might have sufficient trouble with contaminants and resulting bacterial antagonism to make a true positive a rarity.

The directions reproduced herewith cover tentatively the collection and handling of the specimen and culture by the physician, but do not include laboratory methods of handling the material or completing the identification of the cultures. If any laboratory is interested in using this method and wishes advice relative to the complete procedure, it may be obtained by communicating with the laboratory of this Department.

AN EXPERIMENTAL PROCEDURE FOR THE CULTURE OF THE GONOCOCCUS BY DELAYED EXAMINATION

The problem:

The cultural method for the detection of the gonococcus has been proven superior to the smear technic under certain conditions. It has not always been found to be superior, especially under delayed conditions such as may be expected when using the mails for transmittal and it cannot be expected to improve the chances of diagnosis if the physician's methods of obtaining the specimen are at fault. This is particularly true when little attention is given to vaginal contamination.

SPECIAL EQUIPMENT NEEDED BY THE PHYSICIAN

1. An incubator, or arrangement for the use of an incubator, which can be controlled and held at body temperature (it should never be allowed to exceed body temperature, but may be lower by one or two degrees).
2. "Nebraska G. C. Culture Kit."
3. Microscopic "slide kit."
4. Forms for identifying the culture and slides (to be filled out completely).

The G. C. kit consists of a rubber and cotton stoppered test tube containing the culture medium and a sterile swab and a capsule of powder for generating carbon dioxide. (The kit should be kept in the refrigerator prior to its use. Damaged media, including obvious contamination by molds or broken tubes should not be used).

Just prior to the use of the medium, remove from the refrigerator. The rubber stopper is removed and the cotton plug pulled up to the top of the tube. Use one tube for each specimen. Do not use a single tube for culturing both urethra and cervix. The specimen is obtained on a sterile swab and carefully spread over the surface of the slant, taking care that the surface is not broken. The same swab may now be used in obtaining material from the same location for the slide. Discard swab. Do not put it in tube.

As soon as the tube or tubes have been inoculated, the cotton is pushed down in the tube to its original position and the content of the capsule is emptied on the cotton. (This powder is the carbon dioxide generatory substance). One drop of water (no more) is dropped on the powder and the rubber stopper is tightly pushed into the tube. A piece of ¼-inch adhesive is pulled down over the stopper. This will prevent the stopper blowing due to the developed pressure in the tube. The culture may be identified by writing on the tape. The tube is at once placed in the incubator and held there for 48 hours before being shipped directly to the laboratory.

A presumptive examination and report will be made on the day the culture is received.

(a) A positive report means that colonies typical of the gonococcus type and gram negative diplococci of gonococcal morphology have been observed.

(b) A negative report means no growth of a gonococcal type has been observed.

(c) An unsatisfactory report means the culture has obviously not been handled properly or collected as per instructions. It is of the greatest importance to follow directions if unsatisfactory reports are to be avoided.

OBTAINING THE SPECIMEN FOR CULTURE

The physician should ascertain whether the patient has had medication previous to the examination. Any antiseptic preparation applied locally in the form of injection, douches, etc., or medicines taken internally just prior to the taking of the culture may seriously affect the cultural results. The same principle applies when using the culture as one of the criteria of cure. The culture should not be taken for at least 24 hours after treatment has been stopped and, better, a few days should elapse!

1. In the Female Case:

The contamination factor is always the greatest hazard in taking the specimen in the female, whether it be in the acute or chronic case. If care is given to adequate mechanical cleaning of the parts, prior to the sampling, much of the normal contamination can be avoided.

The cervix seems to be the location of choice, however in some cases, the culturing of the glands of the urethra may be indicated. In obtaining the cervical specimen, chemical sterilization of instruments is to be avoided. Do not lubricate the speculum. (If absolutely necessary water may be used for a lubricant). Prior to obtaining the specimen the cervical canal is mechanically cleaned. The blades of the speculum are used to squeeze out material from the deeper cervical glands. The expressed material can be picked up by rotation of the swab in the canal.

2. In the Male Case:

The acute case in the male presents no particular difficulty in obtaining a good specimen for culture. Usually a good smear will give as much information as the culture.

The chronic case in the male will usually show a high degree of contamination and therefore special attention should be given in culturing.

Mechanical cleansing is possible by instructing the patient to urinate just prior to prostatic massage. Only a small amount of the prostatic secretions is needed for culture and may be collected on the sterile swab as already described.

SPECIAL CULTURING

It is urged that the physician contact the laboratory for special instructions in unusual cases.

Supplements to this information will be issued as the work progresses.

L. O. VOSE, M. Sc., Director of Laboratories
W. E. DEACON, M. Sc., Bacteriologist
State of Nebraska Dept. of Health

AMERICAN RED CROSS HUMAN DRIED BLOOD PLASMA

The American Red Cross has, to date, shipped 4,200 units of dried blood plasma to the State Department of Health. It has been made available without cost to all acceptable public and private hospitals and to all licensed physicians requesting it, if so located that they do not have ready access to the plasma in hospitals.

Citizens of Nebraska have obtained the benefits of these blood plasma donations since last March. Physicians reported the use of 626 units during the three-month period. An additional 1,963 units have been distributed over the state to local storage depots, leaving 1,611 units at the central distributing point, the State of Nebraska Department of Health at Lincoln. The lifesaving value of plasma in the treatment of shock is its most striking benefit in both civilian and military medicine.

The attention of all users of Red Cross Plasma is invited to the condition specified by the American Red Cross that this surplus plasma is being distributed for use without charge to the patient for the product. This statement does not mean that the patient may not be charged for the services rendered by the physician or hospital.

On the top cover of each unit package is a "Certificate of Use" which must be filled out in its entirety upon use of the plasma and returned to this Department before replacements may be obtained. Inside each package of plasma an additional form may be found for reporting use in the military forces. This latter form should be discarded since it is not to be mailed to the Army or the Navy.

Occasionally a unit may be found in which the bottle containing pyrogen-free distilled water for reconstitution of the plasma has been broken. If the bottle of dried plasma has remained undamaged, it may still be used upon substitution of an appropriate dilutent. However, if satisfactory use cannot be made of the unit, prompt return of the plasma bottle to the State Department of Health should be made.

An outside label bears the date beyond which the quality of the contents may not be maintained. Every precaution must be taken to retain only usable plasma in stock. If this expiration date is passed before the unit is to be used, return such plasma to the American Red Cross, Midwestern Area Storeroom, 1709 Washington Avenue, St. Louis, Missouri. There are several uses to which this plasma can be put and it is important that it not be destroyed.

Use of the Red Cross Plasma during the first three months of the program is shown in the following table:

RED CROSS BLOOD PLASMA
March, April and May, 1946

Total No. Units: 4,200		
Total No. Units Distributed:		
Units to Hospitals	2,173	
Units to Other Storage Depots	227	
Units to Individual Physicians	189	
Total Units left on Hand		1,611
Total No. Certificates of Use Returned		626
From Hospitals	617	
From Physicians	9	

Indications for Which Used:	Hospitals	Individuals
1. Post Operative Shock	124	1
2. Operative Shock	65	
3. Traumatic Shock	47	
4. Hypoproteinemia	146	2
5. Postpartum Hemorrhage	32	1
6. Burn	24	2
7. Infection	34	
8. Placenta Previa	8	
9. Other Conditions	121	3
No reason given	6	
Not used—contaminated	2	
Not used—broken	8	

CHAS. P. BERGTHOLDT, Bacteriologist,
State of Nebraska Dept. of Health.

NEBRASKA SURGICAL PLAN
CASH RECEIPTS AND DISBURSEMENTS
June 30, 1946

Cash on hand June 1, 1946		$40,199.51
Receipts:		
From dues	$ 6,860.25	
From enrollment fees	390.00	
Taxes deducted from salaries	4.30	7,254.55
		$47,454.06
Disbursements:		
Administrative expense	$ 1,415.45	
Claims paid	4,084.50	
Salary, Executive Director	150.00	
Secretary's fee	25.00	
Advertising	243.03	
Printing and stationery	225.49	
Attorney	50.00	
Refunds	55.25	
Exchange	.55	
Collection expense	2.41	
Hospital record	2.00	
Medical Adviser	50.00	
Dues and subscriptions	2.00	6,305.68
Cash on hand, June 30, 1946		$41,148.38
Bank Balance, June 30, 1946		$41,148.38

NEBRASKA SURGICAL PLAN
BALANCE SHEET
June 30, 1946

Assets:			
Cash in bank		$41,148.38	
Premiums in process of collection		2,286.92	
U. S. Bonds(cost plus accrued interest)		10,035.55	
Prepaid insurance premiums		42.92	$53,513.77
Liabilities:			
Accounts payable, Blue Cross		$ 1,577.20	
Accounts payable, monthly invoices		702.99	
Accrued payroll taxes		17.40	
Claims payable		2,000.00	
Accrued audit expense		150.00	
Unearned premiums		17,087.55	
		$21,535.14	
Subscribers 4% Surplus Notes	$19.450.00		
Net income to date	12,528.63		
		$31.978.63	
			$53,513.77

NEBRASKA SURGICAL PLAN
INCOME AND EXPENSES
June 30, 1946

	June 1946	6 Months to Date
Income:		
From dues	$ 7,886.00	$34,639.25
From enrollment fees	390.00	2,985.00
	$ 8,276.00	$37,624.25
Expenses:		
Claims	4,834.50	17,822.00
Salary, Executive Director	150.00	900.00
Legal	50.00	270.00
Auditing	25.00	150.00
Advertising	154.31	809.87
Printing	548.68	1,401.31
Stationery	-------	39.38
Insurance	20.00	120.00
Administrative expense	1,577.20	6,927.85
Home Office travel and expense	-------	296.00
Professional fees	25.00	150.00
Collection expense	2.41	11.49
Taxes and licenses	1.50	39.00
Miscellaneous	4.55	11.55
Postage	-------	132.84
Dues	-------	45.50
Medical Adviser	50.00	240.00
	$ 7,443.15	$29,366.79
Net Gain	$ 832.85	$ 8,257.46

MEMBERSHIP SUMMARY—JUNE, 1946

	Subscribers	Dependents	Total
1. Membership, June 1, 1946	5,522	7,073	12,595
Additions	446	659	1,105
Cancellations	91	97	188
Net Gain	355	562	917
Membership, July 1, 1946	5,877	7,635	13,512
2. Number of groups now enrolled			394
3. Number of groups added during June			19
4. Enrollment by salesmen:			
M. W. Ashton (outstate)		177	
W. V. Jones (Omaha)		70	
B. R. Lohnes (Omaha)		27	
G. S. Malone (outstate)		93	
C. H. Smith (Omaha)		35	
Office		44	
		446	

JUNE ENROLLMENT BY COMMUNITIES

OMAHA—6 groups, 140 members: Badger Body Works; Condon, O'Hara and Becker; Grant Battery Company, Save-More Super Market, Tax Control Board, Veterans Administration.

HASTINGS—6 groups, 101 members: Bremmer Optical Dispensary, Geyermans, Hastings Air Conditioning Co., Hastings Casket Company, Hastings Chamber of Commerce, Hastings National Bank.

LINCOLN—3 groups, 75 members: State Department of Insurance, Sweeney-Solheim Company, Veterans Administration.

CAMBRIDGE—1 group, 47 members: Cambridge Community Group.

COLUMBUS—1 group, 7 members: John Luschen Company.

COZAD—1 group, 31 members: Nebraska Farm Products.

HEMINGFORD—1 group, 9 members: Know Your Neighbor Club.

ALLIANCE—1 member.
BEATRICE—2 members.
BENKELMAN—1 member.
FALLS CITY—1 member.
FREMONT—3 members.
GRAND ISLAND—4 members.
HOLDREGE—1 member.
LYMAN—1 member.
NORTH PLATTE—4 members.
SCOTTSBLUFF—16 members.
YORK—2 members.

DEATHS

Andrus, Frederick Moore, Lincoln. Born in Plattsmouth in 1872. Graduate of Cotner Medical School in 1900. He studied in large European clinics. He located in Lincoln and became professor of gynecology at his alma mater. He held this position from 1903 to 1915. Dr. Andrus had many civic and professional interests, serving in several official capacities in local and state medical societies, the Shrine, Elks and Y.M.C.A. He died June 14, 1946. Surviving are his wife and a brother.

BOOKS RECEIVED

Synopsis of Physiology by Rolland J. Main, Ph.D., Professor of Physiology, Medical College of Virginia, Richmond. Illustrated, 341 pages, including index. The C. V. Mosby Company, St. Louis, Missouri. 1946.

A Bibliography of Infantile Paralysis, 1789-1944, with selected abstracts and annotations. Prepared under direction of the National Foundation for Infantile Paralysis, Inc. Edited by Morris Fishbein, M.D., Editor, Journal of the American Medical Association. Compiled by Ludvig Hektoen, M.D., Chief Editor, Archives of Pathology, and Ella M. Salmonsen, Medical Reference Librarian, John Crerar Library, Chicago. Dedicated to Franklin Delano Roosevelt, 1882-1945. 672 pages including index. J. B. Lippincott Company, Philadelphia, Pa. 1946.

Diseases of the Retina by Herman Elwyn, M.D., Senior Assistant Surgeon, New York Eye and Ear Infirmary. 587 pages including index with 170 illustrations (217 figures) 19 in color. The Blakiston Company, Philadelphia and Toronto. $10.00.

Diabetes, a Concise Presentation, by Henry J. John, M.A., M.D., F.A.C.P., Lt. Col., M.C., Cleveland, Ohio. Illustrated. 300 pages including index. The C. V. Mosby Company, St. Louis, Missouri. 1946.

ROSTER OF NEBRASKA PHYSICIANS IN MILITARY SERVICE

As of July 15, 1946

ADAMS COUNTY
Shaw, W. L., Hastings
Uridil, C. F., Hastings

BOONE COUNTY
Higgins, J. P., Albion

BOX BUTTE COUNTY
Morgan, R. J., Alliance

BUFFALO COUNTY
Albertson, L. C., Kearney
Dickinson, L. E., Ravenna
Hayes, C. B., Kearney
Wilcox, M. B., Kearney

BUTLER COUNTY
Ragan, L. E., David City

CASS COUNTY
Anderson. R. R., Nehawka

CHEYENNE COUNTY
Bush, Stuart K.

CUMING COUNTY
Krause, Richard A., West Point
Robbins, H. M., West Point
Thompson, L. L., West Point

CUSTER COUNTY
Leonard, Patrick, Broken Bow
Pester, Geo., Broken Bow
Raasch, Richard, Broken Bow

DAWES COUNTY
McElligott, E. W., Chadron

DAWSON COUNTY
Anderson, A. W., Lexington

DODGE COUNTY
Byers, R. C., Jr., Fremont

DOUGLAS COUNTY
OMAHA
Avery, Hiram Henry
Barber, Herbert Gordon
Bowers, Warren F.
Carp, Oscar, Int.
Crawford, Wm. Henry
Curti, Ralph Elmer
Dolce, Daniel D., Int.
Dornberger, G. R.
Everitt, Neill J.
Fogarty, Chas. James
Gross, Jos. J.
Green, Chas. Joseph
Harms, H. H., Int.
Hartford, Thos. J.
Hennegan, Geo. F.
Henrich, Leo. Chas.
Hoekstra, Clarence, S., Int.
Kemp, Wm. T.
Koutsky, Jas. John, Int.
Krieg, Jacob J., Int.
Lierman, C. E., Int.
Mooater, Chas. J., Int.
Nurenberger, Robt. E.
Patton, John Erwin
Peterson, Wendell Case
Reiner, Walter M., Int.
Senter, Vance E., Int.
Strand, Clarence Johnson
Wendland, John P.

FILLMORE COUNTY
Tucker, John G., Milligan

FRANKLIN COUNTY
Williams, Martin P., Franklin

GAGE COUNTY
Rush, Weaver A., Beatrice
Smartwood, F. M., Adams

HALL COUNTY
Campbell, John F., Grand Island
Johnson, E. George, Grand Island

HITCHCOCK COUNTY
Brown, Kenneth W., Stratton

JEFFERSON COUNTY
Lynch, Geo. M., Fairbury

KEARNEY COUNTY
Sutton, Bruce, Minden

LANCASTER COUNTY
LINCOLN
Colbert, Morgan R.
Everett, H. H., Jr.
Lotman, Harry Alfred
Sheldon, Keith
William, Russell I.

LINCOLN COUNTY
Anderson, Gustave Theodore, N. Platte
Anderson, Thorwald R., N. Platte

OTOE COUNTY
Campbell, G. C., Nebraska City
Thorough, Paul H., Syracuse

PAWNEE COUNTY
Harmon, Leo D., Pawnee City

PHELPS COUNTY
Brewster, Donald E., Holdrege

RICHARDSON COUNTY
Youngman, R. A., Falls City

SAUNDERS COUNTY
Kasper, R. J., Wahoo

SCOTTS BLUFF COUNTY
Black, Eugene W., Gering
Hanna, Joe T., Scottsbluff

SEWARD COUNTY
Clarke, Harry D., Seward

THAYER COUNTY
Panter, Lt. E. G., Hebron

VALLEY COUNTY
Round, John N., Ord

News of Veterans

Dr. W. S. Kilgore of York recently received an Italian decoration in the form of a maltese cross for kindness shown to Italian prisoners held in a United States war camp.

Dr. R. R. Andersen resumed his practice at Nehawka on July 1.

Dr. John S. McNeil, who practiced at Little Rock, Ark., before entering military service, has opened an office in Albion.

Dr. Paul M. Scott opened an office in Auburn July 1.

Dr. James Finegan has resumed his practice in ophthalmology at 415 Medical Arts Bldg., Omaha.

Dr. J. J. Freymann, recently discharged from his service with the Navy, has returned to his practice at 1113 Medical Arts Bldg., Omaha.

Dr. Keith Sheldon, Lincoln, has been notified that his Navy service will not terminate for another year. He plans to become associated with Drs. H. W. Orr and Fritz Teal when he is released.

Dr. Lucien C. Kavan, who had been flight surgeon with the Army Air Force at France Field, Panama Canal Zone, was recently released from military service and has located at Schuyler, Nebr.

Colonel Clifford V. Morgan, Omaha, has been appointed executive officer of Walter Reed General Hospital, Washington.

Dr. Loren E. Imes is associated with Dr. M. O. Arnold at St. Paul.

Dr. D. T. Kelley, a graduate of University of Nebraska in 1944, has located at Osceola.

HUMAN INTEREST TALES

Communications bearing human appeal are solicited. They should be addressed to The Editor, Nebraska State Medical Journal, Mezzanine No. 3, Medical Arts Building, Omaha.

Dr. R. D. Smith, formerly of Lincoln, has located in Seward.

Dr. George Hoffmeister, Imperial, has retired from the practice of medicine.

Dr. James W. Va Verke, Omaha, has moved his office to 219 Medical Arts Bldg.

Dr. H. J. Ochsner, Sutton, spent a three weeks' vacation in Colorado during July.

Dr. John Brown III is associated with Drs. H. Winett Orr and Fritz Teal in Lincoln.

Dr. Chas. Tompkins has moved into his new office at 304 South 42nd Street, Omaha.

Dr. Donald J. Wilson has been elected a Fellow of the American College of Physicians.

Dr. M. C. Hennessy of Council Bluffs, died June 7, 1946. The doctor had been ill since September, 1945.

Dr. H. W. Francis on July 28, celebrated his fiftieth anniversary of medical practice in Bancroft.

Dr. Eric De Flon spoke on the progress in medicine during the last 86 years before the Chadron Rotary Club recently.

Dr. T. H. Koefoot, Broken Bow, visited on the west coast last month, while his son, Dr. Ted Koefoot looked after his practice.

Dr. M. F. Arnholt, who has been with the Lincoln City Health Department from 1927 to 1945, resigned his position effective October 1.

Dr. Robert Schrock and family, Omaha, vacationed at their new cottage at Belvedere Club, Chrlevoix, Michigan, in June.

Dr. Paul S. Read, Omaha, announces the association with him of Dr. Henry L. De Long, in the practice of medicine and surgery, at 2415 Fort Street.

Dr. R. D. Bryson, Callaway, vacationed for the month of July on the west coast. His practice was taken over by Dr. J. S. Potekin, recently released from military service.

Drs. Robert D. Schrock and Herman F. Johnson, Omaha, announce the resumption of association with them of Dr. Chester H. Waters, Jr., in the practice of orthopedic surgery.

Dr. Wilbur A. Muehlig left Omaha July 1 for an eighteen months' fellowship in neurosurgery at the Mayo Clinic. His practice will be taken over by his brother, Dr. G. Kenneth Muehlig.

Dr. J. W. Duncan and Dr. J. E. Courtney announce the association with them of Dr. Joseph J. Borghoff, in the practice of general surgery at 730 City National Bank Bldg., Omaha.

Dr. Floyd Clarke, Omaha, resigned his position as head of the Department of Pediatrics, Creighton University School of Medicine. Dr. J. Harry Murphy succeeds Dr. Clarke in that position.

Dr. J. E. M. Thomson left Lincoln on June 14 for a three month teaching mission in Czechoslovakia. He will lecture and instruct in orthopedic surgery at medical universities in Prague, Brno and Bratislava.

Dr. Charles Harms resigned his position as staff physician on the Student Health Service of the University of Nebraska. He will be succeeded by Dr. Richard Miller, recently returned from military service.

The following names of Nebraskans appeared on the registration bulletin in San Francisco, July 5:

Adler, Ethel, Omaha; Alcorn, F. A., Lincoln; Anderson, Arthur W., Lexington; Attwood, N. H., Omaha; Bennett, A. E., Omaha; Benthack, Walter, Wayne; Best, R. Russell, Omaha; Brazer, John G., Omaha; Charlton, G. E., Norfolk; Craig, Donald Olie, Winside; Churchill, I. W., Lincoln; Clark, E. E., Lincoln; Conlin, Frank, Omaha; Connolly, Earl A., Omaha.

Davis, Raul Guahardo, Lincoln; Ewing, Ben F., Omaha; Fouts, Roy W., Omaha; Gerald, H. F., Omaha; Hill, Frederick C., Omaha; Hohlen, K. S. J., Lincoln; Howard, Maurice C., Omaha; Jahr, Herman M., Omaha; Keegan, J. Jay, Omaha; Kelly, James F., Omaha; Kostal, Otto Albin, Hastings; Kovar, W. Riley, Clarkson; Lammel, Harry G., Plymouth; Luikart, Ralph, Omaha.

McCarthy, J. D., Omaha; McEachen, Esther I., Omaha; McGoogan, Leon S., Omaha; McGreer, John I., Fremont; McMartin, Charles, Omaha; McMartin, William Joseph, Omaha; Mangimelli, Samuel T., Omaha; Morrison, W. Howard, Omaha; Pratt, George P., Omaha; Rosenberg, D. S., Franklin; Rowe, Edward W., Lincoln; Sachs, Adolph, Omaha; Seng, O. L., Alliance; Simmons, Eugene E., Omaha; Simonds, F. L., Omaha.

Warner, Ruth A., Lincoln; Young, Jr., George Alex., Omaha; Burr, Ramon H., Creighton; Crimmins, S. J., H. B., Omaha; Hickman, Clarence C., Lincoln; Johnson, Arthur C., Omaha; Kenney, Bernard V., Omaha; Lovely, Frank T., Omaha; McGuire, L. D., Omaha; Manganaro, Carl J., Kimball; Moon, Louis E., Omaha; Morgan, Harold S., Lincoln; Munger, Arbor D., Lincoln; Olney, R. C., Lincoln; Pierson, Clarence A., Pender.

MacQuiddy, E. L., Omaha; Schenken, J. R., Omaha; Taborsky, A. F., Lincoln; Tollman, James P., Omaha; Barry, M. William, Omaha; Hook, Robert L., Rushville; Hunt, Howard B., Omaha; Leonard, Patrick R., Anselmo; Stapleton, H. B., Hickman; Synover, Emil, Pierce; Thompson, Dorothy H., Omaha; Johnston, G. F., Alliance; Yohe, Charles, Omaha.

TUBERCULOSIS ABSTRACTS

When the private physician makes a diagnosis of tuberculosis and succeeds in getting a patient under sanatorium care, he is apt to feel that his job is done. If that patient leaves the sanatorium prematurely, his physician will be handicapped in his subsequent efforts by the failure of this first hospital experience. A knowledge of some of the factors that lead tuberculosis patients to leave hospitals against medical advice should help physicians to prepare patients for accepting and completing hospital care.

THE SIGNING OUT OF TUBERCULOSIS PATIENTS

Those who are interested in helping a patient to use the medical care necessary for recovery and to accept a possible physical limitation, find challenging problems in work with the tuberculous. The importance of this may be realized when hospitals in different parts of the country report that from 22 to 65 per cent of their patients leave "At Own Risk (A.O.R.)."

The patients who refuse all treatment have not been considered. The focus has been on patients who have evinced a desire to get well but who during the course of treatment attempted to terminate their recovery process. All hospital personnel, including the social worker, must accept "It is never the body only which is out of health, but always the complete being." Often the reasons for leaving the hospital are obscure and great skill is needed to help the patient to be realistic and to direct himself toward the goal of complete recovery.

The treatment and hospitalization of patients with tuberculosis involves months or years of restricted activity. A young athletic boy, suddenly faced with tuberculosis, may revolt at accepting this state. Since the tubercle bacilli carry on their destructive work insidiously, the patient, after he has regained some strength, will insist that his cure is completed. This view is maintained despite the contrary evidence of x-rays and sputum reports. Perhaps the fear of this disease is so great as to cause the patient to reject its reality.

The older man and woman, accustomed to years of labor in factory and home, may also find it difficult to accept the new role of inactivity and dependency. Experience has not fitted them to fill the passing empty hours. The thought of lying quietly in bed while the world hurries on is untenable and they are tortured by the desire to be back among the working multitudes.

This boredom is more readily conquered by patients accustomed to study or reading, or those who are fortunate enough to have a hobby. Hospitalization is a difficult experience for the majority, but it can be a constructive one. Rarely does a patient who has found activities that lead to growth and development, sign out against advice. There is also a distinct difference between those patients who have made their adjustment and those who have succumbed to the sheltered life of the hospital and have regressed to an infantile, dependent level.

There does not appear to be any constant point at which a patient may feel that the hospital is no longer bearable. Even when individuals may be apparently adjusted to the hospital routine, the inactivity may lead to cumulative effects until a breaking point is reached. A little supportive treatment at this time will often tide the patient over the rough spot.

An individual entering a hospital brings with him the sum total of his life experiences. He has certain ties, certain obligations, and these remain though they are altered by the new experience. Early contact with the patient and his family can give clues to the patient's motivations and the part the family will play. The marital strengths, the interfamily ties and strains, the relationships in a changing setting should all be weighed and evaluated with the patient. The patient must, if possible, be spared the worry and anxiety of the family. This cannot be done by simply hiding or ignoring real problems. If the family is aware of this, they can show the patient their strengths in meeting problems and assure him that they can keep their balance.

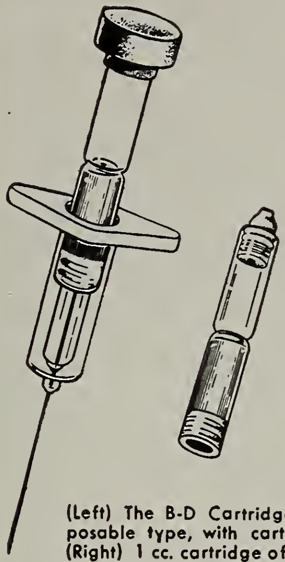
The social worker is often faced with a recently admitted patient who demands to leave the hospital with or without the doctor's permission. An interview usually begins with the patient demanding "How can I remain here while my family starves?" The social worker can be of invaluable aid in directing the family to sources of help and thus make it possible for the patient to accept his hospital stay knowing that his family will not starve or go homeless.

Life in a hospital is complex. A patient is faced with the need to adjust to his companions, the doctors, nurses, and other personnel. He has to give up practically all his privacy, both physical and mental. There are new ideas to be adjusted to in this microcosm of all nations and races. It is not difficult for friction to arise between the patient and a particular person or routine. Personalities may clash and the sick person may feel that the only solution lies in leaving the hospital. Sometimes the patient does not indicate the real reason for signing out but gives the usual statement that he "can do just as well at home." Other patients are quite verbose regarding the sources of annoyance.

(Continued on p. xxviii)

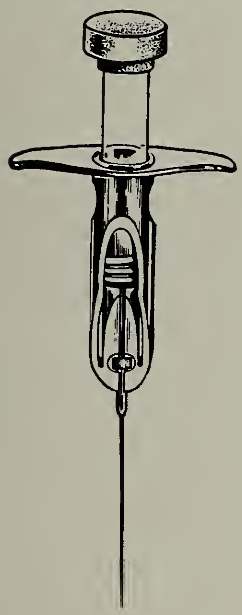
Announcing

Easier Administration of
Penicillin in Oil and Wax



(Left) The B-D Cartridge Syringe, disposable type, with cartridge inserted. (Right) 1 cc. cartridge of penicillin in oil and wax.

The B-D Metal Cartridge Syringe with cartridge inserted.



Bristol Laboratories now introduce two techniques which are designed to make the administration of penicillin easier and more practical. Both of them make use of a 1 cc. glass cartridge of Penicillin in Oil and Wax. A completely new feature of the Bristol Cartridge is a specially designed rubber stopper which permits an aspirating test to prevent venoclysis.

Bristol Cartridges may be used anywhere, any time with the B-D Cartridge Syringe, Disposable Type. (Above) For office or hospital, many physicians will prefer the B-D Metal Cartridge Syringe. (Left)

In addition to the 1 cc. cartridges, Bristol Penicillin in Oil and Wax is still available in 10 cc. rubber-stoppered vials, for those who prefer to employ a Luer-lock syringe. All forms are available through your regular source of supply.

PENICILLIN IN OIL AND WAX BRISTOL

(Romansky Formula)

BRISTOL
LABORATORIES
INCORPORATED

SYRACUSE 1, NEW YORK

UNCERTAIN SUCCESS in the treatment of pernicious anemia is due to many unpredictable factors. One element of certainty is added to your treatment when the Solution of Liver prescribed never varies from rigid standards.

Purified Solution of Liver, Smith-Dorsey, is unfailingly uniform in purity and potency. It has earned and maintained the confidence of thousands of physicians.

Purified Solution of Liver, Smith-Dorsey, will help to protect your treatment—to assure you of good results where the medication is the controlling factor.

PURIFIED SOLUTION OF *Liver*

ACCEPTED AMERICAN MEDICAL ASSN. Council on Pharmacy and Chemistry

SMITH-DORSEY

Supplied in the following dosage forms: 1 cc. ampoules and 10 cc. and 30 cc. ampoule vials, each containing 10 U.S.P. Injectable Units per cc.

THE SMITH-DORSEY COMPANY
LINCOLN • NEBRASKA
Manufacturers of Pharmaceuticals to the Medical Profession Since 1908

TUBERCULOSIS ABSTRACTS

(Continued from page 344)

All members of the hospital team can play very important parts in helping the patient adjust, not only to his illness but to the hospital life. A healthy adjustment in the hospital implies a psychological awareness and acceptance of the illness. When the acceptance has not been achieved, the patient rejects the hospital as a symbol of the disease. In the adjustment of the patient to the hospital one factor that might be given special attention is the food. Tuberculous patients are very conscious of the role of food in their cure and of the variations in their weight. This is one of the chief topics of conversation. One director of a sanatorium when asked how he kept down his A.O.R. discharges to a surprisingly low figure replied that he gave the patients the type of food they would get in their own homes.

An analysis (such as this abstract) cannot give all the reasons why patients interrupt the treatment process. The individuality of every situation is marked, and therein lies the challenge. The problem is a big one. There has been a constant war against tuberculosis. In its earlier stages this fight was on a mechanical level of cleaning up slums, taking mass x-rays, or providing the proper type of hospital care. But now we have come to realize that we are dealing with human beings and the control of the disease will come only when the sick person is prepared to participate.

—The Signing Out of Tuberculous Patients, Jean Berman and Leo H. Berman, The Family, April, 1944.

OLD INDIAN ARROW POISON OF NO VALUE IN POLIOMYELITIS

Curare, a centuries-old deadly poison which South American Indians used on arrows shot from blow guns, was thought for a time to possess certain beneficial effects in the treatment of poliomyelitis, but Max J. Fox, M.D., of Milwaukee, Wis., after administering the drug in purified form to 34 patients, says that "its use is not warranted during the acute phase" of the disease.

Writing in a recent issue of The Journal of the American Medical Association, Dr. Fox says that curare was given to 34 of the 223 patients with poliomyelitis, commonly known as infantile paralysis, who were admitted to the Milwaukee Health Department's South View Hospital between July and November, 1945.

"Only 12 of the patients noted improvement after curare was administered," Dr. Fox wrote, "but the lack of permanence in this subjective sense of improvement did not merit continuation of the drug. Furthermore, although 20 of the cases are reported as showing minor improvements, it must be added that, with the exception of two of these cases, there was no definite certainty in the relaxation of the muscle spasm."

In conclusion, Dr. Fox said:

"Curare may be in some instances of temporary benefit, but it is a dangerous drug and is not to be encouraged for the treatment of the acute phase of poliomyelitis."

Curare, which is now a safe and valuable addition to the modern anesthetist's equipment, was first smuggled out of Venezuela in 1938 by an American explorer. It is extracted from a tropical tree.

THE NEBRASKA STATE MEDICAL JOURNAL

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Vol. 31 Norfolk, Nebraska, September, 1946 No. 9

EDITORIAL

HATERS OF MEN

It is to the credit of the people of Nebraska that this is one of the few states which has not been plagued by what Benard DeVoto of Harper's Magazine calls "pathological haters of men," disguised under the misnomer "antivivisectionists." Bills prohibiting animal experimentation crop up in many legislatures at almost every session. Unfortunately most people fail to appreciate the menace of these bills, and their defeat in each instance thus far has been the result of untiring efforts of physicians and others interested in the biologic sciences. These men spared neither time nor energy in their attempts to block such dangerous legislation. Thus far the only success which these enemies of science and medical progress have achieved consist of local ordinances in San Francisco, Boston, Cleveland, and New York where the use by medical schools of animals sentenced to death in city pounds is prohibited. The implication of this stupid edict is too obvious to require further elaboration here. Dr. Norman T. Kirk, Surgeon General of the United States Army, points out that in Boston each year 33,000 animals are killed, while medical schools waste money sending out of the state for animals necessary in teaching and research.

The viciousness of the whole movement cannot be overemphasized. Nor must it be ignored. Its attacks on all phases of experimental medicine are loaded with half truths and deliberate lies which readily appeal to the weak-hearted and weak-minded, the emotionally unstable, and the morally irresponsible elements of the human race. Unlike some of our other adversaries whose criticism frequently is based on differences of opinion, but who are generally consistent in their views, the "anti-vivisectionists" are basically as dishonest as they are inconsistent. General Kirk observes*:

> "These people aren't at war with cruelty to animals. They are at war with science. They don't lift voices against gelding of cattle to make tender beef, against trapping, hunting or the branding of steers. The antivivisectionist lady sees no incongruity in wearing a mink coat—although dozens of animals were bitten by steel traps and froze to death in the Canadian wastelands to make that coat. They don't object to wearing feathers on their hats although those feathers were plucked from the tails of live birds. And they don't object to eating roast capon—although the chicken underwent painful surgery in order to provide a tender mouthful of food."

To dismiss the organization as an aggregation of distorted personalities, or deliberate enemies of science, whose objectives are so obviously destructive that it will bring its own doom in time to come, constitutes a most dangerous concept. Any highpowered executive, anywhere, willing to work the racket, can start the ball rolling by distributing "literature" on "vivisection" to set the stage in a community. Human nature being what it is makes it comparatively easy for a competent "organizer" to decorate his letterheads with names of a few prominent and many not-so-prominent citizens who modestly consent to serve the cause in a major or a minor official capacity. From here on sailing becomes unbelievably easy. A cry for funds goes to the "Board of Directors" and from there the campaign is authorized and organized with all the drama and pathos designed to touch the heart and the purse of people who love dogs and cats and mice and rats.

Again let no one imagine even for a moment that the fantastic lies which are poured out in the campaign fall on deaf ears. On the contrary, few of these efforts have fallen short of their goals. Finances, so far as we know have never been a problem with the antivivisectionist. Nor have legislative petitions been a cause of insomnia, judging by the frequency with which they appear on the agenda in state legislatures and in Congress. There always seem to be a sufficient number of "angels," if we may borrow a theatrical term, to see to it that the treasury maintain its shape (not long ago two Chicago angels left a total of four million dollars for the "cause").

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*Collier's, June 29, 1946.

Nebraska, we stated has thus far been fortunate in this respect. In 1933 an effort was made to put through an antivivisection bill in the legislature. It was killed in Committee. This does not mean that there are now no "antivivisectionists" in the state. We have more than our unnecessary share, but they have remained comparatively silent. Their silence however, is by no means an indication of disinterest or a sign of harmlessness. They are a menace to medical progress wherever they are, whatever their number, and regardless of functional status they exercise at the moment. We must never lose sight of their ugly potentialities.

PLAN NOW TO ATTEND THE MID-WEST SESSIONS

Next month marks the Fourteenth Annual Assembly of the Omaha Mid-West Clinical Society. As in previous years the sessions offer excellent opportunities for refresher study, and the officers of the Society predict a record enrollment. Again the program was planned to satisfy the needs of every practitioner in this territory regardless of his individual interests or special inclinations. The array of guest speakers is, as usual, all that can be desired since these men represent the best authoritative sources in American Medicine during our time. They are the true makers of medical history. Their researches in the basic sciences and in the clinical fields are outstanding; their abilities as teachers are well recognized by every physician in the country.

The subjects to be presented were well chosen. They represent practically every live topic in modern diagnosis and therapeutics. An additional feature this year is the extension of panel discussions. These have proved so popular in the past that the coming sessions will see seven carefully selected panels. They will cover syphilis, the acute abdomen, new drugs and antibiotic, pain in the neck and shoulder, rheumatic fever, blood substitutes and parenteral fluids, and newer concepts of endocrinology. No physician in active practice can afford to miss the 1946 Mid-West Assembly. The dates are October 28 to November 1, inclusive.

VITAMINS IN PREGNANCY

The use of vitamins in one form or another during pregnancy is now routine procedure among obstetrcians. The extent to which these substances are administered varies widely with locale, economic conditions, and the reaction of the individual physician. With some supplementary additions are a major part of the general care of the patient, with others the vitamin daily intake in sufficient amounts is considered a natural occurrence provided that the pregnant woman subsists on a well-planned diet. Even among the latter group however, it is customary to prescribe extra allotments of pitamin D to facilitate absorption of larger quantities of calcium necessary for fetal development. The popularity of this procedure is based upon logical concept: The growing organism requires calcium. This must be obtained from maternal sources. Maternal stores therefore, must be well supplied if tissue depletion is to be averted. Thus vitamin D is presented for a well recognized specific purpose.

The other accessory food factors are used on general rather than specific principles for the simple reason that their role in fetal economy is not well defined. They are recognized as essential elements in nutritive processes to be sure, but whether if any special part they play in the early or later development of the fetus remains a matter of speculation.

In a recent paper in the Journal of Pediatrics Slobody and his associates showed that the ascorbic acid content is higher in infants at birth and shortly thereafter. These infants also show higher thiamine blood levels even if the mother shows depletion of vitamin B_1 and C.

It is reasonable to suppose therefore, that the fetus requires large supplies of all vitamins and in order to prevent maternal depletion supplementary intake during pregnancy may be advised on the basis of sensible precaution rather than on blind empiricism.

PRESIDENT EARLE G. JOHNSON
Grand Island

This is the season when county and district societies begin to plan their meetings for the year. Present conditions of economic uncertainty in continued world chaos make it increasingly important for physicians to keep themselves informed on all phases of human life and human endeavor. Rapid developments in the science and art of medicine make it imperative for physicians to keep abreast of these developments in order that they may render the best medical care that can be achieved.

Again I wish to remind the secretaries and program committees that I shall consider it a privilege to be called upon to participate in some of their meetings.

EARLE G. JOHNSON, M.D.

Management of Acute Intestinal Obstruction*

ROBERT WOODRUFF, M.D.**
Denver, Colo.

Acute intestinal obstruction is a relatively common abdominal emergency. Early recognition and properly instituted treatment reaps excellent results, whereas, procrastination and mismanagement invite progression of the disease with high morbidity and mortality. This paper is not a statistical study, but rather an effort to emphasize the important points of diagnosis and management of acute intestinal obstruction by the presentation of applicable clinical material. We will deal primarily with mechanical obstruction, chiefly, because adynamic obstruction or ilius is usually secondary to another condition which most often demands the primary consideration.

Obstruction of the intestinal continuity can be caused by anything that encroaches on and closes off the bowel lumen. On the one hand we may have simple obstruction where only the lumen of the bowel is interfered with, while on the other, we may have a strangulated obstruction where the blood supply and nourishment, and therefore the life of the bowel wall is interfered with. Commonly obstructions are caused by postoperative adhesions, congenital bands, hernias, volvulus, intussusception, tumors, gall stones, and vascular embolus and thrombosis.

In intestinal obstruction the predominant symptom is usually pain. The pain is intermittent and colicky and is referred to the mid-abdomen. The patient describes it as "gas pains". Constant pain suggests strangulation of the bowel wall. Nausea and vomiting usually occur early, but these symptoms are found in most abdominal emergencies, and for that reason too much stress can not be laid upon them in the diagnosis. However, vomiting of brownish fecal-like material with intermittent colicky pain, usually means intestinal obstruction, most often in the small intestine. The obstructed individual may pass some fecal material and gas early following the onset of the trouble. However, after this complete cessation of passage of fecal matter and flatus from the rectum is a predominant feature.

When we begin our examination of the obstructed individual, we are presented with a patient who writhes about with his pain. Strangulated obstruction may be an exception to this. Individuals who have pain due to an inflammatory process usually seek a quiet attitude. Further inspection most often reveals abdominal distention. This is usually present quite early, but it may not be too noticeable. In simple obstruction tenderness is characteristically absent. However, even the simple obstruction that has progressed to any extent may show a little weeping from the distended bowel wall, and palpation will reveal some moderate tenderness, most marked in the area of the obstruction. Rigidity and rebound tenderness are absent in simple obstruction. When they are present they usually indicate interference with viability of the bowel. Auscultation of the abdomen reveals borborygmi coincident with the height of pain. These intestinal sounds are usually high-pitched due to the bowel dilatation. Borborygmus by itself is not of much value, but when it is coincident with the height of the colicky pain, it becomes very important in the diagnosis of this condition. Before leaving the examination, one should always look carefully for external hernias as the possible source of the obstructive factor.

Fever is absent in simple obstruction. If present it indicates strangulation and inflammatory change. The white blood count is usually normal in simple obstruction. However, we often see a moderate elevation in the white cell count in some. This is most probably due to the irritative factor of the edematous bowel on the peritoneum.

The scout x-ray plate of the abdomen is our most valuable adjunct in the diagnosis of intestinal obstruction. However, a warning note must be sounded. The diagnosis should not be made from the x-ray alone, but rather the x-ray must be collaborated with the history and physical findings. The importance of the x-ray picture is, that we will find an abnormal accumulation of gas above the obstructive point with absence of or very little gas below it. In the normal individual, except the infant, a flat plate of the abdomen shows gas only in the large intestine. Therefore, gas in the small intestine is a manifestation of secondary ileus or of primary obstruction. Study of x-ray plates of the abdomen not

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*Read before Omaha Mid-West Clinical Society, October, 1945.

**Formerly Lt. Col., M.C., Fitzsimons General Hospital, Denver, Colorado.

only reveals that obstruction is present, but also quite accurately the point of obstruction. The jejunum is more often confined to the left upper quadrant, the ileum to the right lower quadrant, and the colon to the perimeter of the abdominal cavity. Distended loops of small intestine usually occupy a more or less transverse direction, while the gas filled colon is noted in a vertical position along the the sides of the abdomen. In the jejunum the valvulae conniventes are more prevalent than in the ileum. Consequently, the distended loops of jejunum assume a feathered or a silver dollar stack appearance, while the ilial loops assume a more or less blank or characterless form. The haustral markings of the distended colon present a lead to the identification of that segment of bowel. With the flat plate we should be able to differentiate between a mechanical obstruction and secondary paralytic ileus. On examining figure 1, one notes first the quite dilated feathery loops of jejunum in the upper portion of the abdomen, and may think of a mechanical obstruction. However, further inspection reveals a few characterless gas shadows in the lower abdomen, most probably ileum, with a few scattered gas shadows in the colon. This segmental bowel distention together with the thickening between gas filled loops suggests paralytic ileus with free fluid. When this picture was corollated with the clinical history and findings, a diagnosis of ruptured appendix with spreading peritonitis was readily made. Figure 2 shows a more advanced characteristic picture of ileus. This patient had had a ruptured spleen several days before, and the ileus was secondary to that condition. We can note the gaseous distention involving all areas of both large and small intestine.

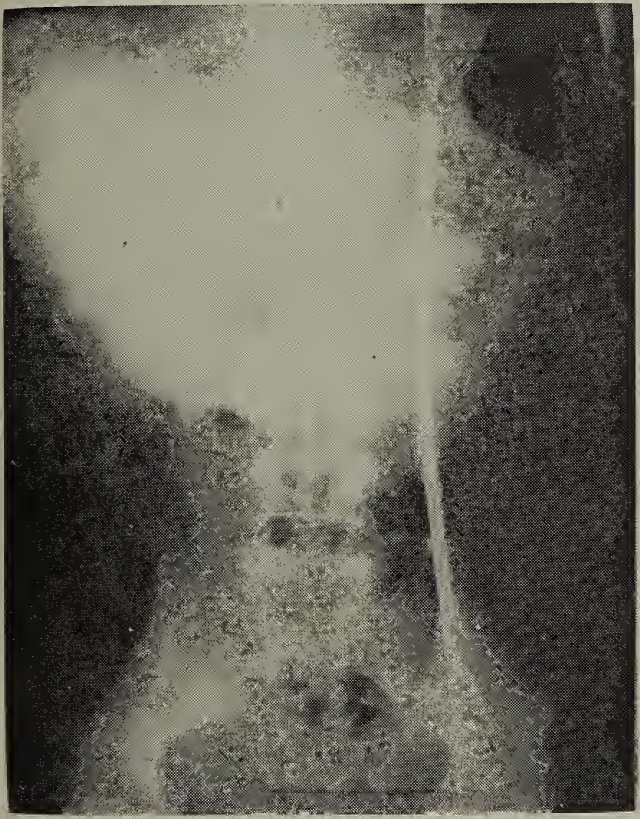
Figure 1

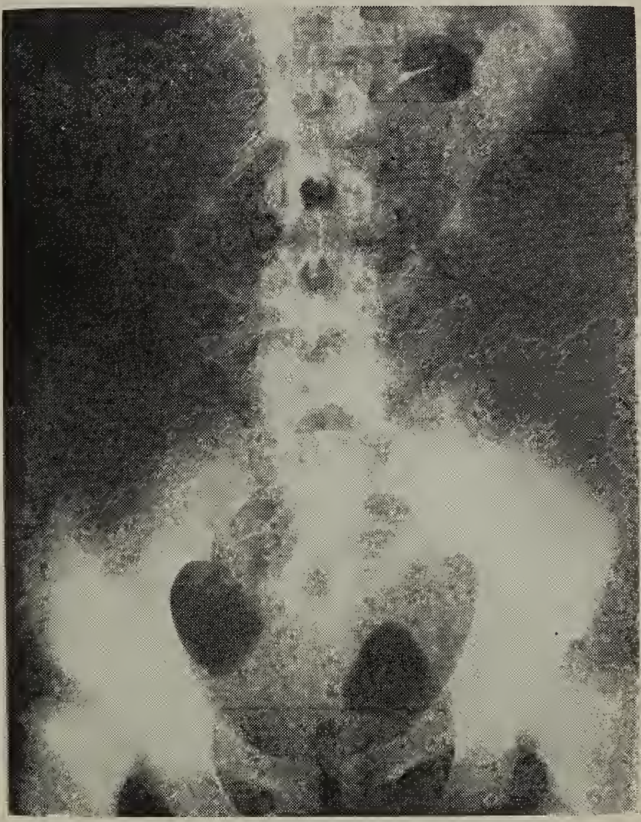
Figure 2

In arriving at the diagnosis of acute intestinal obstruction, we must rule out other acute abdominal conditions. Involvement of the appendix, bowel, the biliary system, and the renal tract, all give rise to colic. The pain of the appendix, the bowel, and the biliary tract are usually first localized to the mid-abdomen. Renal colic most often has its characteristic radiation into the flank. The pain of the biliary tract tends to shift early to the upper right quadrant and radiate into the back. As appendicitis progresses it localizes in the right lower quadrant. In gastroenteritis nausea and vomiting are less prominent while diarrhea is of considerable proportions. Perforated ulcer does not give the typical colicky pain and symptoms of peritoneal insult are early prominent features.

In the management of acute intestinal obstruction we are faced with three plans of treatment. The first is immediate surgery.

The second is conservative measures later combined with surgical intervention. The third is conservative measures without surgery. Conservative therapy is directed at restoring the fluid and electrolyte balance combined with efforts at decompression by the use of intragastric or intraduodenal suction, or the long double lumen Miller-Abbott tube introduced into the further reaches of the small intestine. The long Miller-Abbott tube has been our method of choice in decompression. We have found the following method of intubation to be the most satisfactory and it has been almost universally successful in our hands.

Three to four cubic centimeters of mercury are introduced into the balloon tip of the tube. The tube is placed in the stomach and the patient is put on his or her right side. The weighted tip of the tube readily falls into the pylorus, and then by introducing the tube an inch or two more every 5 to 10 minutes the duodenum is readily entered into. If any difficulty is experienced the patient is placed under the fluoroscope, and by manipulation the tube is introduced into the duodenum under direct vision. It is only after the tube has passed the duodenojejunal flexure that 20 to 30 cubic centimeters of air are added to the balloon.

It has been our plan of treatment to use immediate surgical exploration in the early cases of obstruction where the depletion of fluid and electrolytes is minimal, and the gaseous distention is not marked. This is, of course, mandatory where strangulation is suspected. However, we feel that even in the simple obstruction, operation will be necessary sooner or later in almost all cases, and for that reason, if the patient's general condition is satisfactory, early surgery offers the quickest and safest solution of the problem.

When the process of obstruction has gone on for a long time, usually a period of days, and there is marked distention, loss of fluids, and strangulation does not seem to be a factor, we prefer to point early efforts to restoration of fluids, chlorides, and proteins, and the introduction of the Miller-Abbott tube for preliminary decompression of the bowel. In these cases a delay of a few more hours will certainly do no harm, and will be far outweighed by the advantages of fluid replacement and decompression. If these cases decompress readily they are carefully followed. Often, particularly in cases of obstruction due to adhesion, relief of the gaseous distention will allow the bowel to resume its continuity. Removal of the tube at this point may be followed by reoccurrence of the obstructive symptoms. Therefore, it has been our general policy to carry out an abdominal exploration with the tube in place. Careful injection of contrast medium down the tube may give some help in finding the point of obstruction. The following case is an illustration of this.

An 18 year old soldier was admitted to Fitzsimons General Hospital on 16 April 1945. On 21 February 1945, the soldier was struck in the abdomen by an enemy bullet while in combat in Germany. On that same day abdominal exploration was carried out, and a portion of the ileum was resected. Postoperatively signs of intestinal obstruction developed, and on 4 March 1945, operation was performed to release the obstruction. However, signs of intestinal obstruction recurred, and on 20 March 1945, another abdominal exploration was carried out. Following that procedure, the patient was free of symptoms of obstruction until after his admission to Fitzsimons General Hospital. On 4 May 1945, the soldier developed classical signs of intestinal obstruction. Figure 3 shows a scout plate of the abdomen which confirmed the diagnosis. Note the gas confined to the small bowel particularly the jejunum. A Miller-Abbott tube was introduced and it readily started down the small bowel, but finally reached a point where it would not pass. A small amount of barium was injected down the tube and further x-ray studies were made. Figure 4 shows the abdominal plate which illustrates the obstructing point. On 8 May 1945, four days after the onset of the attack, an abdominal exploration was carried out. About six inches below the end of the Miller-Abbott tube the intestine was found knuckled into a mass of scar tissue. Three months following the operation, at the time of discharge from the Army, the soldier

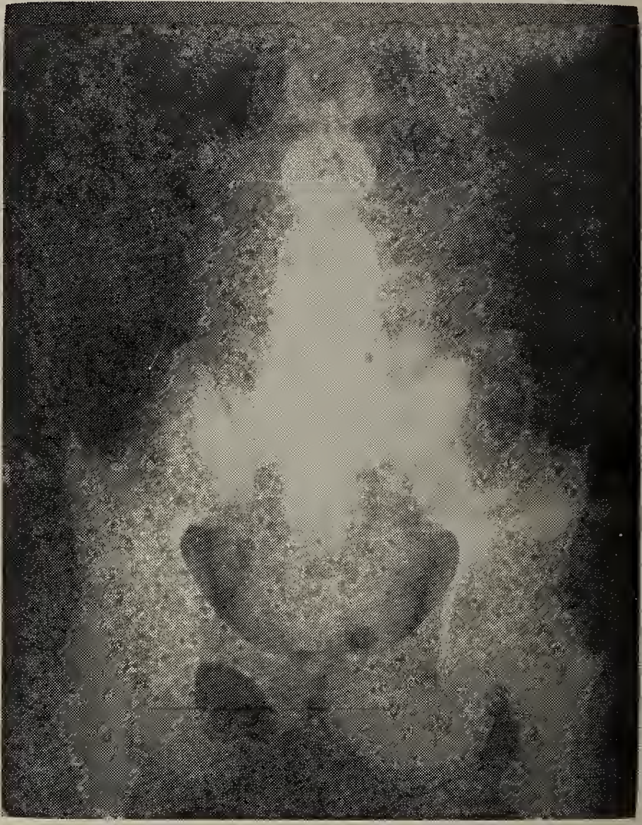

Figure 3

had had no further symptoms suggestive of intestinal obstruction.

We have reserved conservative therapy without operation for those cases of simple obstruction who are poor surgical risks and who are readily relieved by simple, decompression. Our results without surgery have not been too satisfactory as illustrated by the following two cases.

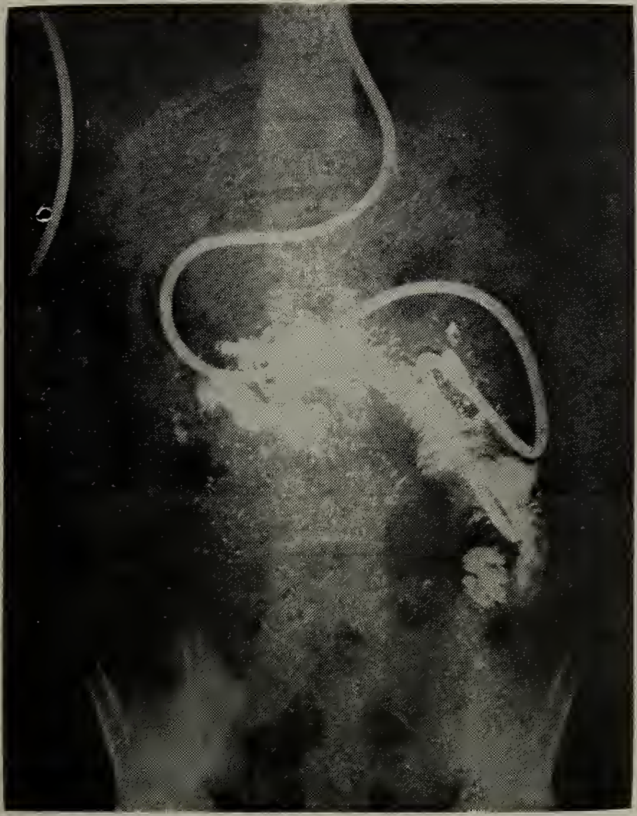
Figure 4

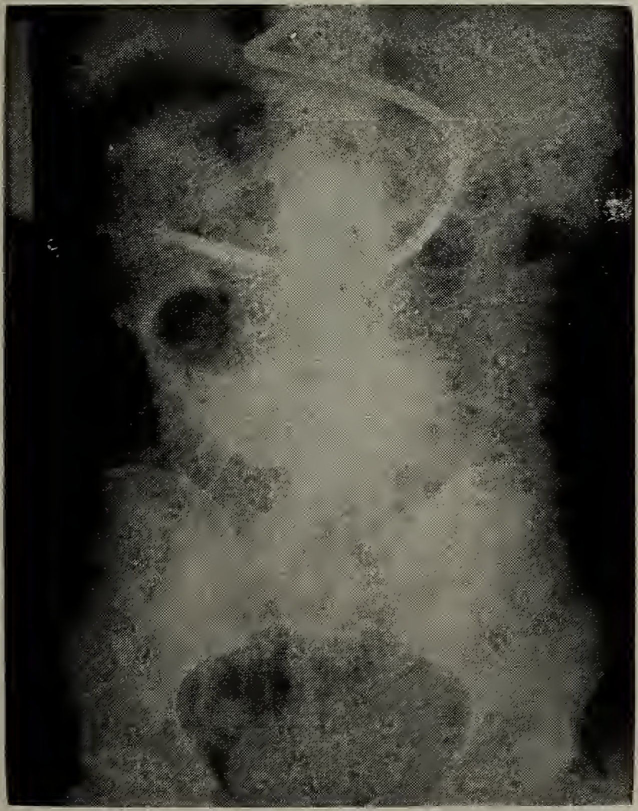
Figure 5

A 67 year old white male was admitted to the hospital in January 1943. This patient obviously had a simple mechanical intestinal obstruction which had been present for several days. Figure 5 shows a flat plate of the abdomen taken shortly after admission. Note the enormous gaseous distension confined to the small bowel. The tip of the Miller-Abbott tube is seen entering the duodenum. Because of the patient's age, dehydration, and marked distention, conservative therapy alone was employed.

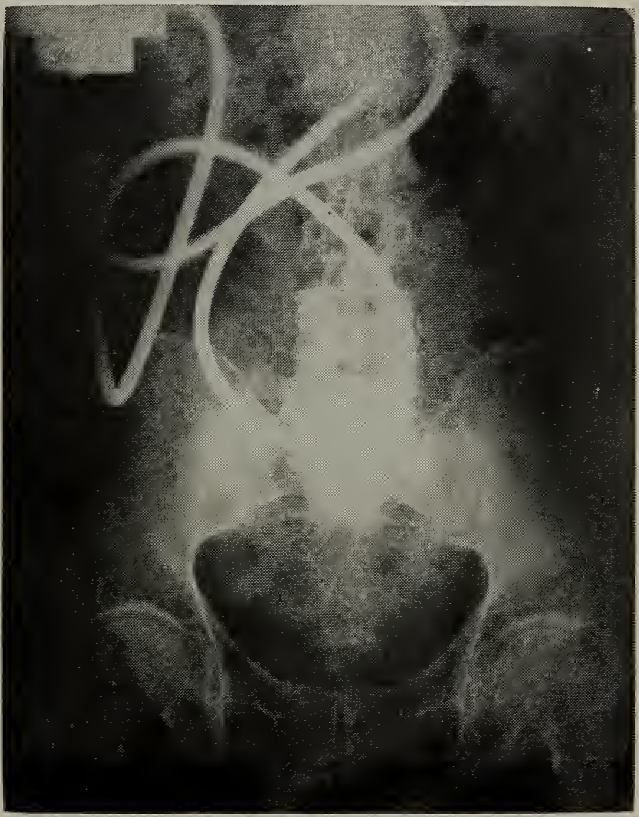
Figure 6

Figure 6 shows the flat plate four days later with the tube well down the bowel, distension relieved, and gas in the colon. A few days later the patient was discharged from the hospital free of symptoms. However, on 16 February, two weeks after discharge, he was again admitted to the hospital with signs of intestinal obstruction. Because the process was early, immediate surgery was carried out, and a knuckle of small bowel was found bound into adhesions from an old appendectomy. The bowel was completely obstructed at that point. The adhesions were released and the patient had an uneventful recovery.

The next case is that of a 62 year old man who was admitted to the Surgical Service in August of 1943. This patient had had an appendectomy two years earlier followed by exploration for intestinal obstruction. For several days before admission he had been suffering from symptoms of incomplete obstruction. Barium was given by mouth as a diagnostic procedure two days before admission. Figure 7 shows a scout plate taken on admission. The contrast solution serves to well outline the stomach and obstructed small bowel. The obstruction was subsequently relieved by simple decompression with the long tube. The patient was dismissed without surgery. Two years later, on 18 August 1945, the patient was again admitted with signs of obstruction which had been present for several days. He stated that he had had recurrent bouts of abdominal pain since his previous hospitalization, but that they had all been spontaneously relieved after a few hours until the present attack. A Miller-Abbott tube was introduced, the bowel was decompressed, fluids were restored, and three days after admission, on 21 August 1945, abdominal exploration was carried out. In the mid portion of the ileum the bowel was bound down to the base of the neighboring mesentery by firm adhesion in such a manner that the bowel at that point, was reduced to about one-fourth its normal size. This condition was relieved and the patient made an uneventful recovery.

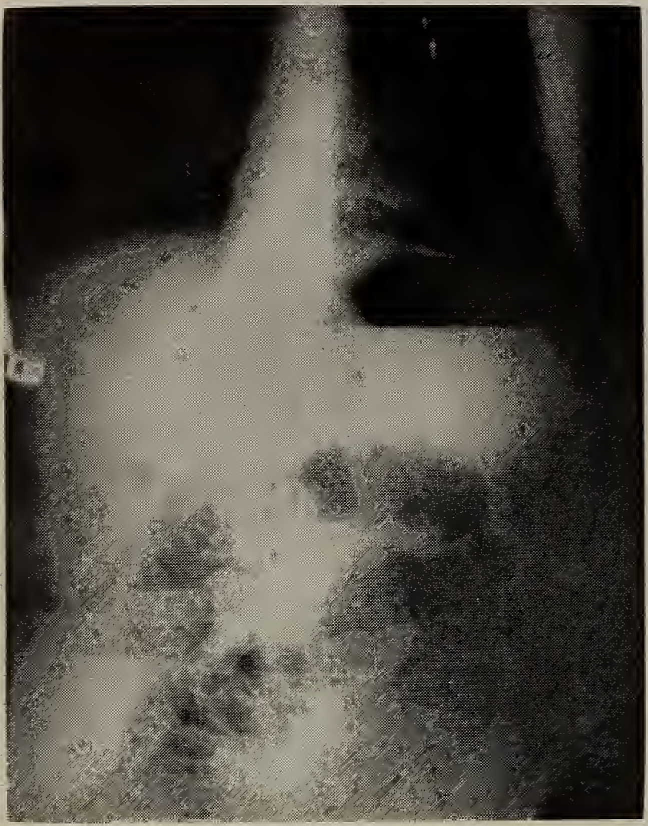

Figure 7

Postoperatively tube suction is maintained until the bowel is well decompressed. Suction decompression returns the bowel to normal much more quickly than if it is allowed to decompress itself. When normal intestinal function is apparent, the tube is clamped off and a graduated diet is started. Fluids, electrolytes, and proteins are replaced by per oral administration as necessary. Blood chemistry is followed carefully. The more severe cases, particularly those of strangulation, are placed in oxygen postoperatively.

Mortality in intestinal obstruction is usually the result of procrastination. The procrastination may be either on the part of the patient or the doctor. This is well illustrated in the following case.

A 51 year old male was admitted to the hospital on 2 May 1944. Forty-eight hours prior to his admission he was suddenly seized with severe cramping abdominal pain. He became nauseated and vomited shortly after the onset. He consulted his doctor who gave him pills for gastroenteritis. The pain continued and he had not been able to retain any fluid or food on his stomach up until the time of his admission to the hospital. He stated further that his bowels had not moved and that he had not passed any gas by rectum since the onset of pain. For many years he had a small mass, about the size of a walnut in the right inguinal region which would disappear when he would lie down. Examination revealed a dehydrated obviously acutely ill white male. The abdomen was moderately distended and visible peristalsis was noted on the abdominal wall. Auscultation of the abdomen revealed high pitched markedly increased bowel sounds. There was generalized moderate tenderness with some rebound tenderness. In the right inguinal region there was a firm, unreducible tender mass about the size of a walnut. This apparently was coming from the femoral canal. The white blood count was 15,100 with 87% neutrophils. Figure 8 shows the flat plate of the abdomen which readily confirmed the diagnosis of strangulated femoral hernia. The patient was operated upon two hours following his admission to the hospital. At operation the obstructed bowel was released from the femoral canal on the right side. There was a necrotic area about the size of a dime on the antimesenteric wall. Otherwise it seemed viable. The necrotic area was repaired without resection. On the third postoperative day the patient was evacuating flatus and abdominal distention was decreasing. However, hyperpyrexia persisted from the time of surgery, and the patient expired on the seventh postoperative day. Autopsy revealed that the obstructed area of the bowel was viable and patent. This patient was seen by a phy-

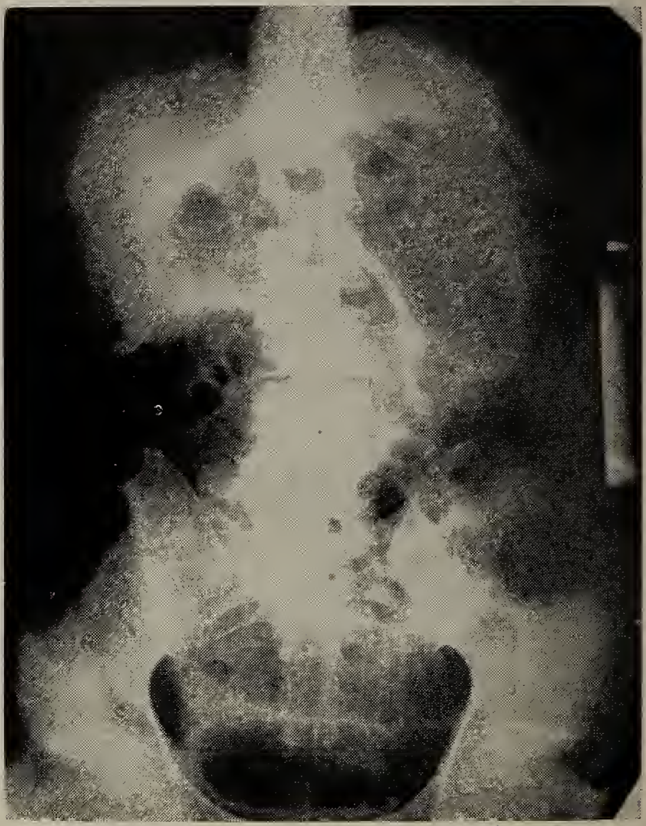

Figure 8

sician on the day of the onset of his symptoms and also on the following day. He was given a hasty check-up and a package of medicine for gastroenteritis. Early recognition of this condition may have well saved the patient's life.

On 12 May 1945, a 28 year old soldier was admitted to Fitzsimons General Hospital for the treatment of the residuals of a fracture dislocation of the right astragulus. On the day following admission he developed pain in the left side of the abdomen. This was followed by nausea and vomiting. The soldier stated that he had similar symptoms before. It was the clinician's preliminary impression that the symptoms were due to heavy ingestion of food and liquor the evening previously. The symptoms continued the following day and the soldier was transferred to the General Surgery Section. On arrival there the pain had subsided and no immediate specific therapy was carried out. The past history revealed that as long as the soldier could remember he had had intermittent bouts of constipation without bowel movement for as long as five to six days. He was usually able to correct this condition with either castor oil or saline cathartic. He stated further that heavy ingestion of food always caused vomiting. However, in spite of these troubles he had normal physical development. The soldier stated that shortly after his induction into the Army in July 1942, after a period of constipation lasting four to five days, he had for the first time severe pain over his upper abdomen. He reported to sick call and was given an enema without relief. He was admitted to the Station Hospital there and observed for a period of twenty-six days and then returned to duty. He stated that his bouts of constipation continued but that he was able to control them by the use of cathartics. On the morning of 19 May 1945, four days after arriving on the General Surgical Service, his pain recurred and was considerably worse. Blood count at that time revealed 20,100 white cells. Examination a few hours later revealed marked abdominal distention with some tenderness and rigidity in the left upper quadrant. The temperature was elevated to 101.8 degrees. Figure 9 shows a flat plate of the abdomen taken at that time. Marked bowel distension is noted which stops in the transverse colon. Figure 10 is another

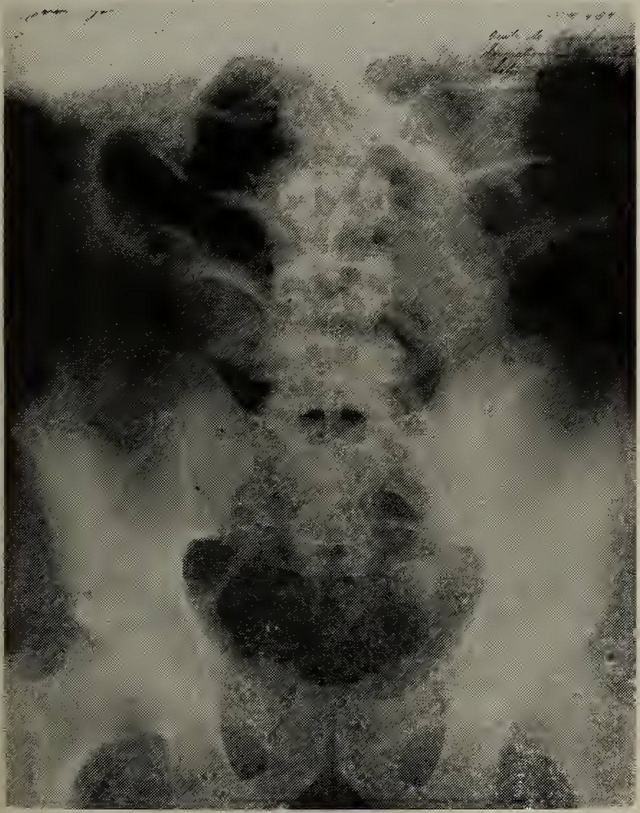
Figure 9

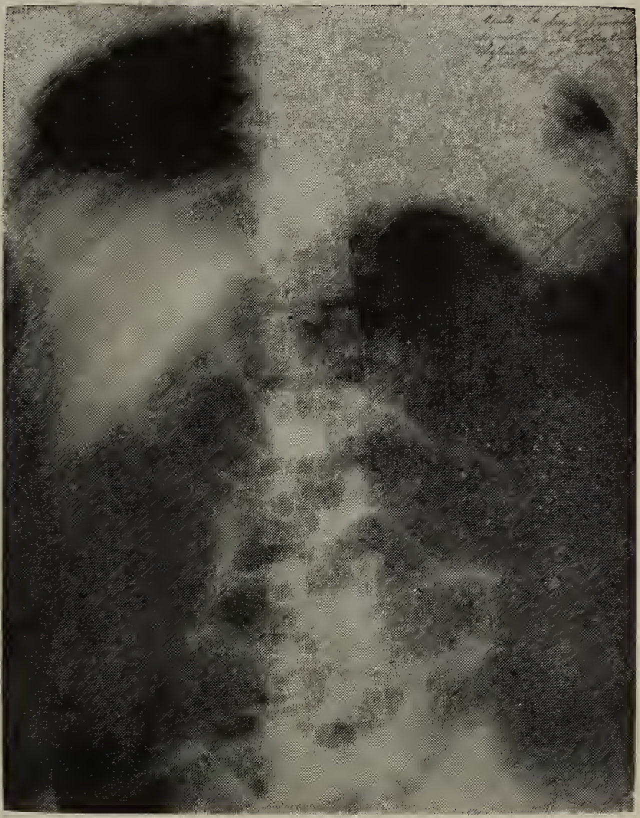
Figure 10

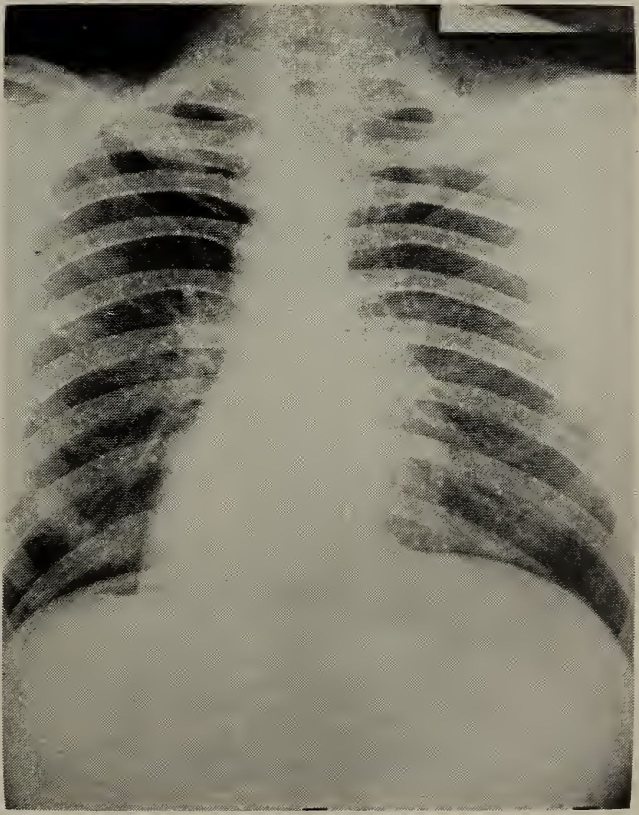
Figure 11

abdominal plate showing the picture of obstruction in the transverse colon. Note the gas shadow above the left diaphragm. Abdominal exploration was carried out with the preoperative impression of strangulated diaphragmetic hernia. The intestine was markedly dilated throughout except for the distal portion of colon. The midportion of the transverse colon could be seen passing into a hole in the lateral portion of the left leaf of the diaphragm. The diaphragm was tightly constricted around this portion of the bowel. The opening in the diaphragm was enlarged slightly and twelve inches of strangulated transverse colon together with a portion of the greater curvature of the stomach was replaced back into the abdominal cavity. The opening in the diaphragm was closed. The bowel appeared viable and the operation was terminated. Figure 11 shows a flat plate of the chest taken shortly before soldier's discharge from the Army several months later.

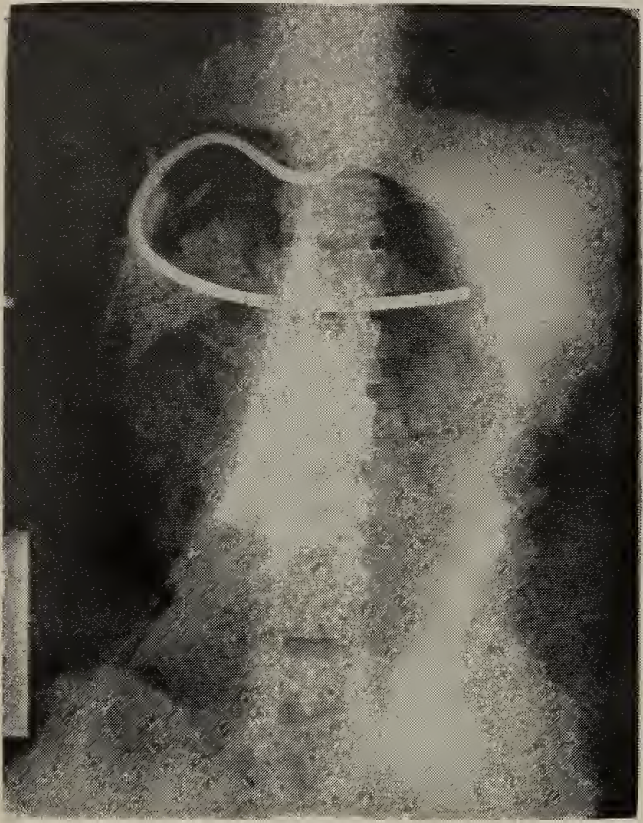

Figure 12

The next case was a 46 year old Colonel who was admitted to the hospital late in the evening of 21 December 1944 complaining of abdominal pain and constipation of about twenty-four hours duration. The history was negative except for recurring bouts of constipation during the past year always relieved spontaneously. Figure 12 shows a flat plate of the abdomen. A large distended loop of sigmoid colon can be outlined with moderate distension of the proximal colon. A diagnosis of volvulus of the sigmoid was made, and confirmed at operation.

In this presentation I have endeavored to emphasize some of the important points in the management of acute intestinal obstruction. If the physician when examining the acute abdomen is conscious of this condition, the classical symptoms and the confirmatory scout plate of the abdomen will substantiate the diagnosis. A well chosen plan of management will result in low morbidity and mortality with a prompt return of the patient to his normal status.

* * *

IN THIS ISSUE

THE importance of the proper management of intestinal obstruction is well appreciated by everyone. A most interesting discussion of this timely subject is presented in this issue by Dr. Robert Woodruff of Denver. Many readers of this Journal heard Dr. Woodruff at the Omaha Mid-West Clinical Society at its last annual sessions. Turn to page 348

DR. HERBERT DAVIS, before the annual sessions of our Association last May, presented an interesting paper on the goiter problem as he studied in the University Hospital. We present this paper here on page 355

MANY of our members took part in the symposium on Gastro-intestinal Hemorrhage held during the Mid-West sessions of 1945. We present three papers as a part of this symposium on page........................ 361

A DETAILED account covering the many phases of Vincent's Throat Infection was presented by Dr. J. Calvin Davis at the Mid-West last October. The paper is reproduced on page 370

ANOTHER interesting staff meeting of the Methodist Hospital in Omaha is covered through the cooperation of Dr. John R. Schenken, Pathologist at the Hospital. Dr. Schenken spends much time and effort in editing these procedures. He does an excellent job. Turn to page........................ 373

Analytical Survey of Goiter Management University of Nebraska Hospital*
1935 - 1944

HERBERT H. DAVIS, M.D.
Omaha, Nebraska

During the ten year period from 1935 through 1944, 551 goiter patients were treated at the University of Nebraska Hospital. There were 378 patients or 68.6 per cent with a diagnosis of thyrotoxicosis, and 159 or 28.9 per cent who were diagnosed as non-toxic goiters. Carcinomatous goiter was found in 14 patients or 2.5 per cent. There were 147 patients or 26.8 per cent with a toxic diffuse type of goiter, and 182 patients or 33.0 per cent with a toxic nodular type. They were further classified as: Severe, or those in general whose metabolic rates on admission were plus 60 per cent or over; Moderate, or those whose basal metabolic rates on admission were from plus 20 to plus 59 per cent inclusive; and Borderline, or those with rates below plus 20 per cent. Patients who presented the complications of pregnancy with goiter and those who were diagnosed as recurrent goiters were grouped separately in this study. In the entire group of goiters, there were 76 males or 14 per cent and 475 females or 86 per cent. Mortality of the group, exclusive of carcinoma, was 16 patients or 2.9 per cent.

GOITERS AT UNIVERSITY HOSPITAL
1935-1944
TOTAL NUMBER OF CASES—551

		Number	Per cent		
Toxic diffuse—	Severe	35	6.4		
	Moderate	84	15.3		
	Borderline	28	5.1		
				147	26.8
Toxic nodular—	Severe	18	3.2		
	Moderate	123	22.3		
	Borderline	41	7.5		
				182	33.0
Goiter during pregnancy				18	3.2
Recurrent goiter				31	5.6
Non toxic goiter				159	28.9
Carcinomatous goiter				14	2.5

This study gives interesting comparisons of various forms of treatment as these patients were under the care of various physicians, surgeons, and radiologists. In this study I have been very careful not to be biased but to record the findings accurately and fairly. These patients were treated mainly before thiouracil was available and so will act as controls for later study of patients treated by this drug.

Age: The average age of the toxic diffuse goiters was thirty-four years, of the toxic nodular type forty-six years, and of the non-toxic goiters was forty-two years.

Average duration of goiter and of toxicity: In the group of toxic diffuse goiters of the severe type, the goiter mass was present for an average of 2.78 years with a history of toxicity averaging 1.35 years duration. In those of moderate intensity, the average duration was 4.4 years with an average duration of toxicity of 1.31 years. In the borderline group there was an average duration of 9 years, and an average duration of toxicity of 1.22 years.

In the toxic nodular group of the severe degree, the average duration of the goiter was 18.58 years with an average duration of toxicity of 1.66 years. In the moderate group the average duration was 11.6 years with average duration of toxicity 1.58 years. In the borderline group there was an average duration of 14.4 years, with an average duration of toxicity of 1.79 years.

The average duration of goiter in the non-toxic group was 12.7 years.

Average weight loss: The average weight loss in the toxic diffuse and toxic nodular goiters was much the same except in the severe types, where it was 32.4 pounds in the diffuse and was 41.6 pounds in the severe nodular. In the moderate grade the loss was 27 pounds in the diffuse and 28.6 pounds in the nodular. In the borderline patients it was 22.3 pounds in the diffuse and 23.5 pounds in the nodular. It is interesting that the average loss in even the non-toxic group was 16.6 pounds.

Lugol's solution before hospitalization: Of the total group treated at the hospital, 159 patients or 32 per cent received Lugol's solution or iodine in some form before entry for an average length of from 4.2 months in the toxic diffuse borderline group to 19.5 months in the toxic nodular moderate group.

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*Read before the annual sessions of the Nebraska State Medical Association in Lincoln, May 9, 1946.

Lugol's solution as a preoperative measure: This treatment was found to yield satisfactory results in general in all of the groups, controlling the symptoms of toxicity and lowering the basal metabolic rates from entry levels by several per cent. In the diffuse goiter group the average basal metabolic rate dropped from plus 70 to plus 42.8 in the severe category, from plus 40.7 to plus 25.8 in the moderate, and from plus 11 to plus 6.3 in the borderline group. Those with nodular goiters responded as well, the basal metabolic rate dropping from plus 72.6 to plus 50.5 in the severe category, from plus 36.7 to plus 27.8 in the moderate, and from plus 12.6 to plus 9.8 in the borderline cases.

TOXIC DIFFUSE—SEVERE

There were 35 patients in this group. The oldest was 58, and youngest 14 years of age, the average being 34. Nine or 25.7 per cent were males, and 26 or 74.3 per cent were females. Many of these had a rather sudden onset and a very rapid development of toxicity. The average duration of the goiter in the males was 8.3 months. In the females it was 2 years and 10 months, but excluding 2 patients, which probably should not be classified in this group and who had thyroid enlargements of 16 and 13 years, the average duration was 1 year and 9 months. The average duration of toxic symptoms in the male was 5.7 months and in the female 1 year and 6 months. Stating it otherwise, the goiter existed one year or less in 21 of 31 recorded in the history or in 68 per cent. The toxicity was of this brief duration in 21 of 33 stated in the histories or 63.6 per cent.

In general the patients who were relatively young and with symptoms of short duration and who had had no treatment or just recent pre-admission treatment with iodine, responded the best and quickest to iodine therapy. The highest basal metabolic rate was recorded as plus 149 per cent. The average rate on admission was plus 70 per cent, the average improvement before operation or on non-surgical measures was to plus 42.8 per cent. The average rate of 12 patients who had this test done after operation before leaving the hospital was reduced to plus 12.8 per cent.

The predominant form of treatment was preoperative iodination followed by surgery, which was done in 29 of the 35 patients, or 82.9 per cent. Of these 26 had sub-total thyroidectomy. Three died. Of the remaining 23, 15 responded to our questionaire, the results being excellent in 12 or 80 per cent, and improved in 3 or 20 per cent. None of them was unimproved. Of the other 3 treated surgically, 2 had lobectomy.

One of these, a woman of 34 with a 10 month illness, was admitted with a basal metabolic rate of plus 85 per cent. She did not respond well to preoperative treatment including liquor iodi compositus; in 28 days the basal metabolic rate was reduced slightly to plus 58 per cent, but she continued to lose weight from 95½ pounds to 85½ pounds. In spite of this a lobectomy was done, and she died that same day of a thyroid crisis. If this patient were seen now, she would be prepared for thyroidectomy by thiouracil and then iodine also given the last few weeks before operation to decrease the vascularity of the gland. The other had a right lobectomy with marked improvement, the basal metabolic rate falling to plus 28 per cent, followed in 2 months by a left lobectomy with fine result.

A very toxic case, a girl of 23, required four operations, the first three of which were followed by severe toxic reactions. It is a fine example of multiple stage operations saving a life in a very toxic patient before the advent of thiouracil. She was in the hospital 129 days and had a superior pole ligation; later a ligation of the other superior pole; later a right lobectomy; and finally a left lobectomy. She made a fine recovery and left the hospital with a rate of plus 8 per cent. Unfortunately, we have lost track of her.

Roentgen treatment to the thyroid was used in 4 patients, or 11.4 per cent.

One patient was treated by several methods. This woman of 35 with an illness of six months was admitted with a rate of plus 60 per cent. In twenty-three days of treatment with iodine the rate dropped to plus 23 per cent and the right superior pole was ligated. Her condition improved and she returned in three months at which time she was given roentgen ray treatment to the thyroid, using a dose of 1200 roentgens. Her present condition shows improvement.

Another was treated with thiouracil followed by roentgen treatment with an excellent result.

The third patient was admitted twice, the first time with a basal metabolic rate of plus 77 per cent, when she was given roentgen treatment. Two months later, on returning to the hospital, the rate was plus 64 per cent, and then medical treatment for thirty days reduced it to plus 42 per cent. This is the last heard from this patient.

The fourth, a woman of forty-five with symptoms of 3 years duration, had received iodine medication off and on during that time. Her basal metabolic rate was plus 56 per cent. She was given 1320 roentgens to the thyroid between September 28 and October 14, 1938. She failed to respond to it or to iodine, and she died November 14 of thyroid crisis.

Of the four patients treated by the roentgen ray, two had excellent results, one the result is unknown, and one died.

Medical treatment was used in two patients, or 5.7 per cent. One a girl of sixteen who had toxic manifestations for two years was admitted with a basal metabolic rate of plus 101 per cent, and died of thyroid crisis in three days. We have lost track of the other.

The mortality rate, 6 patients or 17.1 per cent, seems very high, but it must be remembered that this was before thiouracil was available except for one patient. Now thiouracil is of tremendous value in this type of patient, at least in those who do not respond markedly to iodine therapy. It is interesting that ligation operations were used in only 2 patients, neither of whom died and both left the hospital in very good condition. Of the 6 deaths, 4 were due to thyroid crisis. One died of crisis in three days, failing to respond to medical management. This case would have died before thiouracil could have affected her. Another failed to respond to medical management, and roentgen therapy was used to no avail. Thiouracil might have saved this patient as she lived 61 days after admission. Of the four deaths following surgery, one who had failed to respond to iodine in fifty-four days died on the table during a thyroidectomy using nitrous oxide —ether anaesthesia. One died of thyroid crisis the day a lobectomy was done. Both of these might have been saved had thiouracil been available. One died 12 hours after thyroidectomy of technical causes. The sixth died of bronchopneumonia ten days after thyroidectomy. The anaesthetic was avertin and cyclopropane. Very likely, three of these deaths could have been prevented by the use of thiouracil.

TOXIC DIFFUSE—MODERATE

There were 84 patients so classed. Nearly all of the typical uncomplicated patients were treated by surgery, this being done in 77 or 91.7 per cent. No ligation operation was done. In one patient the thyroid was removed in two stages, and all the others had thyroidectomy in one stage. There was one death due to postoperative pneumonia the third day after thyroidectomy. We know the result in 65. It was excellent in 42 or 64.5 per cent, improved in 16 or 24.8 per cent, and unimproved in 7 or 10.8 per cent.

One was treated with roentgen therapy with a dosage of 880 roentgen units. She returned to the hospital two months later nearly moribund.

Medical treatment was used in two patients, one because she refused operation and the other because of severe hypertension and multiple sclerosis. The former had a poor result and the latter died two years later, supposedly of the hypertension. Four received no special treatment and none of these answered our letter.

TOXIC DIFFUSE—BORDERLINE

In this group the main problem is diagnosis. The percentage of good results depends on the number in which the complaints were due to goiter. Of course those who were treated with mistaken diagnoses could not be expected to have uniformly good results. There were no deaths in the hospital in this group of 28 patients. There were no striking differences in the results of those with basal metabolic rates of 10 to 20, 0 to 10 per cent, or minus. We have heard from 19 of them. Of these 12 had thyroidectomies in which 6 or 50 per cent had fine results, and 6 or 50 per cent were improved. Eleven patients were treated medically but only 4 were followed, one with fine result, one improved, and 2 unimproved. One of these died five years later of mitral stenosis. Of 4 with no treatment, 3 responded to our letters, and they were all improved. It is surprising that out of 19 patients followed in this group, irrespective of the treatment or lack of treatment, only 2 were unimproved.

TOXIC NODULAR—SEVERE

In this group diagnosis is not much of a problem and so the results are more definite. Two or 11.1 per cent died, both in crisis. One of these was thought to have a psychosis and so did not receive treatment of thyrotoxicosis.

She was 45, had been sick for one year, and entered with a basal metabolic rate of plus 31 per cent, which reduced on rest in two weeks to plus 15 per cent. She was in the hospital 30 days, then went home for four months. During this time she became much worse and returned in thyroid crisis with auricular fibrillation and cardiac decompensation. The basal metabolic rate was not recorded. She died after three days in the hospital, being in too severe crisis to respond to the usual medical measures. The other death was one day after a right lobectomy of the thyroid. She was 64, had a goiter for forty-four years, which had been toxic for six months, during which time she had lost 55 pounds. During twenty-one days of pre-operative treatment the basal metabolic rate did not reduce, being plus 57 per cent on admission and plus 58 per cent before operation.

Of the 18 patients, 15 or 83.3 per cent were treated surgically. One or 6.7 per cent died following a lobectomy. Of 11 with known results, and all of these had one-stage thyroidectomies, 7 or 63.6 per cent were cured, and 4 or 36.4 per cent were improved. None were unimproved.

Roentgen therapy was used in 2 patients, using dosages of 1200 and 1188 roentgens. The one heard from is improved four years after treatment.

Medical treatment was used in the patient in crisis only and so no conclusions can be made.

TOXIC NODULAR—MODERATE

Of the 123 patients in this group, surgery was performed in 111, or 90.2 per cent. Three of these died, 2 being due to crisis eighteen and fourteen hours after operation, and one seven days after operation due to an excess dose of liquor iodi compositus. The results are known in 88 of these with excellent outcome in 43 or 48.6 per cent, improved in 35 or 40 per cent, and no improvement in 10 or 11.4 per cent. Two of these had recurrence of goiter later. In one there was an injury of the recurrent laryngeal nerve.

Roentgen therapy in 4 cases was fairly successful. Of the 3 known results, 2 or 66.7 per cent were excellent, and 1 or 33.3 per cent was unimproved and seven months later entered the hospital for mental disease.

Medical management was rather unsuccessful. It was used in 6 or 4.8 per cent of these cases. Of the 5 we know about, one or 20 per cent was excellent, 1 or 20 per cent improved, and there was no improvement in 3 or 60 per cent.

Two patients refused treatment. Both had bad results. One of these had a thyroidectomy performed elsewhere four months later with excellent results. The other, age 75, died three months later.

Of this group, follow-up study showed that 4 died of unrelated disease, one following thyroidectomy died eight years later with auricular fibrillation and decompensation, and another died of unknown cause.

TOXIC NODULAR—BORDERLINE

Surgery was the treatment of choice in 38 or 92.7 per cent of the 41 patients in this group. One died the day after operation of cardiac failure and pneumonia. The results are known in 28. Of these the result was excellent in 12 or 42.8 per cent, improved in 13 or 46.4 per cent, and unimproved in only 10.7 per cent. Medical treatment was used in three only. The one heard from had a fine result.

Diagnosis is not quite so difficult in this group as in the toxic diffuse borderline, and so a higher percentage were operated and the results were somewhat better.

NON-TOXIC GOITERS

One hundred and three of the 159 patients in the group of non-toxic goiters were treated surgically, all with fairly satisfactory results. There were 11 patients who were treated medically with a satisfactory result in 9 patients and no improvement in 2 patients. Of the 45 patients who were given no treatment, 19 had satisfactory results and 26 had unsatisfactory results.

TOXIC GOITER IN PREGNANCY

Eighteen patients presented the problem of pregnancy complicated by goiter. These patients were an average of 31.3 years, they averaged in the 4.5th month of their pregnancy, and a goiter had been present for an average of 12.1 years. They have a history of toxicity of an average duration of 16 months.

Ten of the 18 patients were treated surgically with satisfactory results in the entire group. Five were treated medically. The results were good in 2, one got worse during the pregnancy, the basal metabolic rate increasing from plus 29 to plus 45 per cent, and after delivery had a thyroidectomy with excellent result, one died, and the other has not been contacted.

One of these, a patient age 40, in her sixth month of pregnancy, had palpitation, restlessness, and auricular fibrillation. She was given 1138 roentgens of radiation and Lugol's solution from March 3rd to 20th. Because she did not improve, on April 12th the right superior thyroid artery was ligated, and on April 19th this same procedure was done on the left. Her basal metabolic rate on March 28 was plus 62 per cent, and on April 25th it was plus 65 per cent. Taking Lugol's solution she was dismissed to await delivery. Three months later, after delivery, she returned with a basal metabolic rate of plus 53 per cent. She died suddenly three days later before being ready for thyroidectomy. Autopsy revealed pulmonary embolus.

No treatment was given to the thyroid in 2 instances; both had unsatisfactory results. The pregnancy was terminated in both in the fifth month, one having a therapeutic abortion and the other a Caesarian section. One of these died 18 months later and the other has not been heard from. One other was delivered. She is worse.

RECURRENT GOITER

Recurrent goiters occurred in 31 patients or 6 per cent of the group. Of these, 15 were of the diffuse type (9 per cent of all diffuse goiters treated;) and 16 were nodular goiters (6 per cent of all nodular goiters treated.) In this study goiters classified as recurrent were those recurring after previous surgery. Those following medical treatment, roentgen therapy or no treatment were not considered in this discussion. Twenty-five recurred following subtotal thyroidectomy, and 6 recurred following lobectomies. Of those recurring after lobectomy, 5 recurred on the opposite side where the lobe was intact and one recurred on both sides.

These patients had an average basal metabolic rate of plus 41.5 (highest 76, lowest 16) on their first entry, while on the second entry the average was plus 25.9. The basal metabolic rate apparently responded more satisfactorily to lugolization the first time, since the drop in rate was from an average of plus 41.5 to an average of plus 28 per cent. On the second entry the average was plus 25.9 and after pre-operative lugolization the average was plus 30.4 per cent. This figure may be misleading, however. Only about one-third of the patients had readings before operation and after pre-operative preparation, and these were likely those whose clinical response to Lugol's solution was not entirely satisfactory. Nevertheless, in three patients there was a definite rising basal metabolic rate while taking Lugol's solution, and where the rate was lowered it was in general a moderate decline. Those patients whose basal metabolic rates were over plus 60 per cent responded to Lugol's solution in the usual dramatic way.

Surgery was used in 19, or 61.3 per cent of the 31 patients. Two or 10.5 per cent of these died, one of pulmonary atelectasis the next day, and the other of thyroid crisis the first postoperative day. This patient's basal metabolic rate increased during pre-operative treatment from plus 40 to plus 45 per cent. Of 14 followed, the results were excellent in 8 or 57.1 per cent, improved in 5 or 35.7 per cent, and unimproved in 1 or 7.1 per cent.

It is surprising that only one patient was treated by radiation. We do not know the final result.

Medical treatment in 7 patients has the result determined in 6, being excellent in 1 or 16.7 per cent, improved in 2 or 33.3 per cent, and unimproved in 3 or 50 per cent.

All of the 4 untreated patients had poor results.

TOXIC GOITER—TOTAL

	Surgery	Roentgen Therapy	Medical Treatment	No Treatment	Total
Total	313-82.8%	13- 3.4%	39-10.3%	13- 3.4%	378
Died	12- 3.8%	3-15.4%	3- 5.1%	0	16- 4.2%
Known Results	240	7	22	10	279
Excellent	134-55.8%	3-42.8%	5-22.7%	1-10%	141-50.5%
Improved	84-35.0%	2-28.6%	4-18.1%	3-30%	95-34.0%
Unimproved	22- 9.2%	2-28.6%	13-59.1%	6-60%	43-15.4%

CARCINOMA

Carcinoma of the thyroid was found in 14 patients or 2.5 per cent of all patients admitted for thyroid treatment. The average age of these patients was 60 years, the span being from 39 years to 71 years. The average duration of the mass was 14 years, the span being from 1 year to 38 years. Toxicity in this group averaged on entry was plus 26.8. However, this figure was based on information from a limited number of the group. Rapid growth of the gland was observed in 11 patients. Three of these goiters had been present 38, 30, and 25 years with no increase in size, until sudden activity developed within one year in two of them and within nine weeks in the other.

The most frequently reported symptom was pain, generally of a radiating type, involving head, neck, ears, shoulders, and arms.

Examination of these patients revealed a mass of varying degrees of firmness, from very hard to fairly firm, with a definite fixation noted in several instances.

Surgery alone was the treatment in 4 or 28.6 per cent. Of these, one died and the results of the other three were excellent. Thyroidectomy followed by roentgen therapy was done in 5 or 35.7 per cent. Two of these have since died, and the other I know of is well. The only patient treated by roentgen therapy alone has since died. The results have been uniformly fatal in those not treated, 3 dying in the hospital and the other one since then.

CONCLUSIONS

In the years 1935 to 1944 inclusive 551 patients with the diagnosis of goiter were treated at the University of Nebraska Hospital.

The hospital mortality was 20 patients, which is 3.6 per cent. Four of these were carcinoma. Of the 16 deaths in patients with toxic goiter, the commonest cause of fatality was thyroid crisis, which was in 11 or 68.75 per cent. Most of these were in patients who did not improve or even got worse on medical or pre-operative management. Two of them were admitted in crisis and died in a few days. The other 9 may have been prevented if thiouracil had been available. It is in this group that thiouracil should be used in the pre-operative treatment. Three deaths were due to postoperative pneumonia. There were no deaths in the 159 non-toxic patients.

Eighteen of the patients were seen during pregnancy. The best results followed thyroidectomy, which is not contraindicated in pregnancy.

Thirty-one goiters recurring following surgery were treated. Surgery gave the best results.

Of 279 patients treated for toxic goiter which have been contacted by us, the results were good in 84.6 per cent. Of the 240 treated surgically, 90.8 per cent had good results. Of 7 with roentgen therapy 71.4 per cent were improved. Medical management in 22 patients benefited only 40.9 per cent.

Carcinoma of the thyroid occurred in 14 instances, which was 2.5 per cent of the group. Four of them died in the hospital, 4 others succumbed later, and 4 are known to be well.

* * *

MEN PREDISPOSED TO HEART DISEASE BY THICKNESS OF ARTERY LINING

Coronary disease is far more frequent in men than in women because the inner lining of the heart arteries is about three times thicker at birth in the male than in the female.

Writing in the July 13 issue of The Journal of the American Medical Association, William Dock, M.D., from the Department of Pathology, Cornell Medical College, and the Department of Medicine, Long Island College of Medicine, states that after performing post-mortem examinations on 12 infants of each sex dead within 24 hours of birth, he found that the thickness of the inner lining of the arteries averaged 26 per cent in newborn males and eight per cent in females.

The presence of high blood pressure is one of the conditions that may predispose men born with thickened artery linings to have heart disease. The passage in the arteries of such men is narrower than that of women; therefore, a clot may form in one of the coronary arteries or one of the branches and deprive the heart muscle of blood for a length of time sufficient to do damage.

Atherosclerosis, which causes a degeneration of the inside lining of the arteries, is one of the diseases said by the author to have a predilection for the coronary arteries. This the author ascribes to the thickness of these vessels.

"While the anatomy of the coronaries plays a decisive part in preparing the ground for atherosclerosis and accounts for the difference in the incidence of myocardial infarction in the sexes, it would be most unfortunate," the author states, "if physicians regarded coronary occlusion as an inevitable fate for those with the inborn characteristic. On the contrary, as hypertension and cholesterol metabolism become better understood and controllable there is every reason to believe that there will be a decline from the present appalling death rate from coronary disease to the insignificant level now prevailing in other populations, such as the Chinese. Here lies the greatest opportunity for medical science to prolong the effective years of life."

Symposium on Bleeding from the Alimentary Tract

Systemic Causes of Gastro-intestinal Hemorrhages*

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While the greatest majority of gastro-intestinal hemorrhages are due to local causes, there remains a group of cases in which the cause for the bleeding resides somewhere away from the bleeding area. This group, though relatively unimportant numerically, is of great importance from a diagnostic standpoint.

It is easy to assume that a severe gastric hemorrhage in a young adult is most likely caused by a peptic ulcer, basing the assumption on statistical grounds. It is of paramount importance, however, to consider all the exceptional possibilities, uncommon as they may be. And the exceptional cases are not so rare, in the final analysis.

Excluding the more common lesions which cause gastro-intestinal bleeding, such as ulcer, cancer or ruptured venous varices (generally caused by portal cirrhosis), there remains a sizable group of 10-20 percent of cases in which the bleeding is due to some systemic disorder.

The systemic causes could be divided into 3 groups: (1) Hematogenous, (2) Infectious and Toxic, and (3) Miscellaneous and Obscure.

The accompanying table gives a brief outline of the various subdivisions of the three main groups.

GROUP I.

A. Gastro-intestinal hemorrhages in purpura, acute leukemias and aplastic anemia, like the spontaneous hemorrhages observed in these diseases in any other parts of the body are due to platelet deficiency. Very little can be added to what we already know to explain the cause for the hemorrhages in these diseases. The treatment, however, varies. Of the three, thrombocytopenic purpura gives the most hopeful prognosis; frequent small transfusions or the less-frequent large transfusions may raise the platelets in the blood to above the critical level and a cure established. In the more severe and stubborn cases splenectomy may be the last resort.

The acute leukemias are always fatal, and no satisfactory method of treatment has as yet been evolved. The same may be said about aplastic anemia, except for the rare case of temporary injury to the bone marrow by a known toxic agent; such a case should be supported by transfusions, while the toxic agent has been removed, in the hope that the injury to the marrow is not of a permanent nature and that it will in time resume its normal function.

B. In hemophilia the weakness supposedly lies in the make-up of the individual platelets. The platelets are not diminished in number but are of an inferior quality, lacking the property in disintegration, necessary for the formation of a normal clot. Unlike thrombopenic purpura, hemophilia is not characterized by spontaneous bleeding. Hence, theoretically, one should not expect to see any hemorrhages in a hemophiliac unless the bleeding is initiated by trauma. In practice, however, a hemophiliac may suffer severe hemorrhages from relatively trivial causes, or causes which in a normal individual would never lead to serious blood-loss. Severe gastric hemorrhages were reported, for example, in a patient who swallowed a peach-stone, or in a young man who was hit in the abdomen playing foot-ball. Balfour(1) cites two remarkable cases of peptic ulcer occurring in two brothers, hemophiliacs. One of them was operated twice, but continued to bleed because of the systemic condition.

C. The principal organic constituents of plasma concerned in clot formation are prothrombin and fibrinogen. Both of these are formed in the liver. Vitamin K in some manner helps the formation of prothrombin in the liver. This vitamin is generally derived from certain foods, but may also be derived from the bacterial action in the intestinal tract. It takes, however, the addition of bile salts to aid its absorption and bring about the formation of prothrombin in the liver.

Prothrombin deficiency in the blood, therefore, may be produced in three ways: (1) Lack of vitamin K; (2) Lack of bile in the intestinal tract; and (3) Liver damage.

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*Read before the Omaha Mid-West Clinical Society, October, 1945.

These data on the physiology of prothrombin form the basis for the understanding of the different kinds of hemorrhages caused by its deficiency.

Vitamin K deficiency is hardly ever seen in the adult because of its abundance in most green vegetables and, moreover, because of the ability of the putrefactive bacteria to synthesize it in the intestinal tract. However, in the new-born the supply of this vitamin may be very small, and with the alimentary tract being more or less sterile during the first few days of life, a critical level may be reached, below which the not infrequent condition known as "melena neonatorum" sets in. Excellent therapeutic results are usually obtained in the treatment of this condition by the administration of vitamin K. The treatment usually does not have to be kept up long: with the establishment of a bacterial flora in the intestinal tract enough of this vitamin will be formed to supply the needs.

Faulty absorption of vitamin K, resulting in hemorrhages, may rarely be encountered in prolonged severe diarrheas, such as sprue, celiac disease or ulcerative colitis.

As mentioned above, bile salts aid the absorption of vitamin K from the intestinal tract. Absence of bile salts, therefore, retards or prevents the absorption of this vitamin from the intestine. Obstructive jaundice, from whatever cause, may bring on a hemorrhagic tendency. The treatment, directed against the hemorrhagic tendency, would again be vitamin K, administered hypodermically.

On the other hand, in case of liver damage the formation of prothrombin may be impaired or suppressed, irrespective of the supply of vitamin K or freedom of the flow of bile into the intestine. Such a case, naturally, would not be benefitted by the administration of vitamin K.

In cases of advanced liver damage, the formation of fibrinogen as well as that of prothrombin may be inhibited or stopped. Hemorrhagic disorders are, therefore, often seen in acute yellow atrophy, yellow fever, poisoning by chloroform, phosphorus, arsenic, etc. Here, again, the administration of vitamin K would be of no value.

GROUP II.

A. Hemorrhages complicating or following acute infectious diseases.

In the course of severe forms of acute infectious diseases we rarely encounter gastrointestinal hemorrhages coming on unexpectedly and forming serious complications. The cause of such hemorrhages has not been explained. I have personally seen such unexplained hemorrhages in the course of pneumonia, small-pox and typhoid fever. Cases have been reported also in influenza, measles, malaria and other infectious diseases. It should be noted that the hemorrhages referred to here as occurring in the course of typhoid are of an entirely different nature from the commonly known intestinal hemorrhages in this disease. The latter are generally due to an eroded vessel within an ulcerated focus in the intestinal mucosa, while the former is a systemic condition occurring in "hemorrhagic typhoid". The patient generally exhibits a purpuric eruption all over the body and may vomit blood along with the passage of bloody stools.

B. Hemorrhages due to low-grade hepatitis.

According to Balfour, it has been shown (by Graham) that hepatitis almost constantly accompanies chronic diseases of the gall-bladder and pancreas and that in chronic cholecystitis the liver, microscopically, often presents a picture practically identical with that of early cirrhosis. Chronic infectious processes within the abdomen (gall-bladder, appendix, pancreas) may be responsible for gastric hemorrhages. The liver is the key to the explanation of such; the changes which result in hemorrhages are produced through the same channel in all, namely the portal cirrhosis. It is possible that these various chronic foci of infection cause chemical or physiologic changes in the liver, which, if the cause is not eradicated, may progress to the cirrhotic liver.

Four per cent of the patients with gall-bladder disease characterized by well-marked reflex gastric disturbances, according to Balfour, gave a history of hematemesis.

GROUP III.

A. Miscellaneous Hemorrhages.

(1) Embolic.

Mesenteric emboli, like cerebral emboli or emboli into the spleen and kidneys are not a rarity in auricular fibrillation. I can think of at least one case in which the patient had severe abdominal pain and bloody stools, in whom at autopsy a large segment of the intestine was found to be dark, hemorrhagic and necrotic. The patient had an old mitral stenosis and recently developed auricular fibrillation.

In bacterial endocarditis, also, septic emboli may lodge in the wall of the gastro-intestinal tract. Smithies(2) cites a case where the patient suffered hemorrhage from the stomach. Subsequently the patient developed hematuria and hemoptysis. The explanation for the various hemorrhages was found in the diagnosis of subacute bacterial endocarditis with septic infarcts in the gastric wall, kidney and lung.

(2) Allergic.

Violent vomiting from food allergy, according to Friedenwald and Morrison(3), may lead to gastric hemorrhages in individuals with constitutionally fragile vessels.

More important, however, is the disease-entity known as Henoch's purpura, which is a form of anaphylactoid purpura. Vomiting, often bloody in character, may occur. Colicky pains, tenesmus and bloody stools are generally present. These may precede the purpuric eruption in the skin. The symptoms are due to an urticarial serohemorrhagic effusion into the intestinal wall.

(3) Ovarian Dysfunction.

(a) Vicarious menstruation resulting in gastric hemorrhages is quite a rare occurrence. However, one should be cognizant of the fact that such an entity does exist and can be very serious. Smithies cites a case of a 24 years old patient who had 9 severe gastric hemorrhages within the three years preceding her entrance to the hospital. She had undergone several operations, on the supposition that she was suffering from a bleeding peptic ulcer; yet, no ulcer could be found. The hemorrhages always occurred during or before a menstrual cycle. It finally dawned on the patient's medical advisers that the hemorrhages were due to vicarious menstruation; matrimony and child-bearing were suggested to the patient. Following her first pregnancy dysmenorrhea and the gastric hemorrhages disappeared.

(b) David's disease is also a disease due to deficiency of the ovarian hormone; it is characterized by hemorrhages from mucous membranes or marked purpura. Gastro-intestinal hemorrhages have been reported in this disease.

(4) Hereditary hemorrhagic telangiectasis is another rare condition in which gastric hemorrhages may occur. It is a vascular anomaly characterized clinically by hemorrhages and anatomically by multiple dilatation of the capillaries and venules in the skin and mucous membranes. The vascular anomaly appears to be transmitted as a dominant in both sexes. The triad of habitual hemorrhages, multiple telangiectases and familial history are diagnostic.

B. Obscure:

(1) Chlorosis. Idiopathic gastric hemorrhages are frequently seen in chlorotic girls; these are often erroneously diagnosed and treated as peptic ulcers.

(2) Splenic Anemia (Banti's disease).

Of all the systemic conditions responsible for gastro-intestinal hemorrhages splenic anemia is by far the most important one. From 5 to 10 per cent of all gastric hemorrhages are due to splenic anemia. It is third in order of importance. (Ulcer being first and cancer second.) Gastric hemorrhages in this disease are rather the rule than the exception. Of 74 splenectomies done for splenic anemia at the Mayo Clinic, 37 to 50 per cent of the patients, according to Balfour, gave a history of one or more gastric hemorrhages. In Miller's(4) collection of 151 cases of gastric hemorrhages, the incidence of hemorrhages in the patients suffering from splenic anemia was 93 per cent, i.e., nearly every patient in that group who suffered from splenic anemia had at least one gastric hemorrhage.

Gastric hemorrhages in this disease often suggest the diagnosis of peptic ulcer and may be so severe as to cost the patient his life. Nasal hemorrhages are not infrequent.

An anemia, independent of the hemorrhages, and a leukopenia are generally present along with the splenic enlargement. The relation of the splenomegaly to the anemia is a complete mystery. The anemia is not of the hemolytic variety. The tendency to hemorrhage has not yet been explained. Portal cirrhosis is generally a late occurrence in this disease while the hemorrhagic tendency and the anemia appear early.

The explanation that the gastric hemorrhages are due to pressure of the enlarged spleen cannot be accepted, in view of the fact that in other disease of the spleen in which this organ is greatly enlarged, such as hemolytic jaundice and myelogenous leukemia, hemorrhages are very unusual. According to Balfour, in a series of 45 splenectomies for hemolytic jaundice not a single case was met with in which there was a history of gastric hemorrhages, and only 1 per cent of the patients with myelogenous leukemia gave a history of hematemesis.

Thrombosis of the splenic vein is often found in splenic anemia; this generally produces distended collateral channels connecting the spleen with the stomach. Yet, even this could not be accepted as the answer to the hemorrhagic tendency, in the face of the frequently seen nasal hemorrhages. All in all, one can't help but classify the hemorrhages in splenic anemia as of an obscure origin.

Splenectomy, done early in this disease, before portal cirrhosis has set in, is followed usually by good results. One should, however, recognize this disease during its first stage. This stage is characterized by mild to moderate anemia, leucopenia, splenomegaly and tendency to bleeding. The liver is not enlarged, like in the second stage, nor is it shrunken, like in the last stage.

The following case report will illustrate the seriousness of this disease and the importance of its early recognition:

Miss S., aged 22, was admitted to the Lutheran hospital on Nov. 15, 1944. Patient was comatose, dyspneic and cyanosed. The following brief history was obtained from her mother:

Patient had numerous spells of weakness during the last year. She vomited copious quantities of blood several months ago. During the last few weeks she had been bleeding per rectum. Shortly before her entry to the hospital, patient had a convulsive attack. She expired within 30 minutes after admission to the hospital. No laboratory work was done.

Important Autopsy Findings:

All the visceral organs were very pale. There was marked splenomegaly; the spleen weighing 3400 grams. Also cirrhosis of the liver, grade 2 and punctate hemorrhages through the mucosa of the colon.

Final impression: Patient died of exsanguination due to splenic anemia (Banti's Disease).

The microscopic sections of the various organs confirmed this diagnosis. Subsequently we have learned that the patient has been treated during the last few months for rectal ulcers. The intestinal hemorrhages were attributed to bleeding from the ulcers. We have also learned that the patient had a blood count on December 18, 1943 which was as follows: Hg. 6.5 gms. (45%); RBC. 2,630,000 and WBC. 4,000.

The lessons to be learned from this case are:

1. Copious hemorrhages, leading to exsanguination, could hardly be attributed to rectal ulcers.

2. The anemia and leucopenia which the patient showed 11 months before death should have been taken more seriously. A general physical examination would have brought out the splenic enlargement even at that time.

In conclusion I wish to state that nearly all of the above-enumerated systemic causes of gastro-intestinal bleeding can be diagnosed readily if we are cognizant of the fact that ulcer or cancer are not the sole causes of such hemorrhages, and subject the patient to a complete physical examination.

TABLE I.

I. Hematogenous Gastro-Intestinal Hemorrhages:

(A) Due to platelet deficiency: Thrombopenic Purpura, Acute Leukemias, Aplastic Anemia.

(B) Due to platelet abnormality: Hemophilia.

(C) Due to changes in the plasma:

(1) Lowered prothrombin content: Liver damage; vitamin K deficiency; obstructive jaundice; sprue and celiac disease, ulcerative colitis.

(2) Lowered Fibrinogen: Advanced liver damage, acute yellow atrophy, etc.

II. Infectious and Toxic:

(A) Complicating or following acute infectious diseases: Pneumonia, Small-pox, Influenza, Typhoid, Malaria, etc.

(B) Presumably affecting the liver primarily and producing a low-grade hepatitis: Chronic Cholecystitis and Cholelithiasis, Pancreatitis, Appendicitis.

III. Miscellaneous and Obscure:

(A) Miscellaneous:

(1) Embolic: (a) Bacterial endocarditis; (b) Auricular Fibrillation.

(2) Allergic: Anaphylactoid Purpura (Henoch's Purpura).

(3) Ovarian Dysfunction: (a) Vicarious menstruation. (b) David's disease.

(4) Hereditary Hemorrhagic Telangiectasia.

(B) Obscure:

(1) Chlorosis.

(2) Splenic Anemia.

REFERENCES

1. Balfour, D. C., Trans. Coll. of Phys., Philadelphia, 44:236-254, 1922.

2. Smithies, Frank, Gastro-Duodenal Hemorrhage, Ann. Int. Med. 1:637-654, 1928.

3. Friedenwald, J. and Morrison, S., The Clinical Significance of Gastro-Intestinal Hemorrhage. The New International Clinics. 1:65-91, 1939.

4. Miller, T. G., Massive Gastric Hemorrhage. Penn. Med. J. 32:237-241, 1929.

Esophageal and Gastric Hemorrhage*

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Surgical intervention offers little in sudden massive hemorrhage from the esophagus. However, there has recently appeared in the literature a report that during the course of injection of a varix in this region tearing with hemorrhage occurred and this was successfully controlled with packing. This may be good augury of what the future management of these desperate cases will permit.

We must concern ourselves with the prevention of hemorrhage in those cases in which most likely it will occur, or the prevention of recurrent hemorrhage in those cases which have survived. Of the lesions responsible, the most important and difficult to manage is by far the common form of varicosities seen in the lower portion of the esophagus. Prevention of hemorrhage from such a condition therefore demands an early diagnosis. And in this esophagoscopy is our most important aid to be combined with roentgenological studies.

Treatment can be direct to the lesion with injection of some sclerosing agent and further enhanced by surgical procedure that relieves the back pressure in the esophageal veins initially responsible for the condition. Ligation of the coronary vein and the gastrolienal veins followed by splenectomy is of value. Omentopexy further relieves the congested portal circulation. Splenectomy, naturally, cannot always be done on patients who are poor risks. At the time ligation of the coronary vein is carried out. the peripheral portion anastomosing with the esophageal veins may be injected with some sclerosing solution.

Splenectomy, ligation of the coronary vein, lienal veins and omentopexy have been in vogue for sometime but statistics show that 38 to 50% of patients treated suffer recurrent hemorrhage which is often fatal. Direct sclerosing through the esophagoscope is a more recent procedure and no complete figures are yet available as to the final results. Our prognosis in these cases may be considerably improved as this form of therapy is developed.

The surgeon confronted with initial acute massive gastric hemorrhage complicating peptic ulcer has indeed a serious problem before him. Experience reflects that a certain undetermined percentage of such cases particularly in the middle age group terminate fatally unless heroic measures are taken to stop the hemorrhage. On the other hand most gastric hemorrhages from this cause stop automatically after a certain low physical ebb is reached.

At operation and even at autopsy it may be difficult to discover the source of the hemorrhage, if bleeding has stopped temporarily. Even in an old calloused ulcer, where the dense fibrous tissue prevents the bleeding artery from retracting or collapsing, the tiny orifice may be invisible unless it continues to bleed or is filled with a protruding clot. Still less easily visible is the open vessel in an acute ulcer, because here it can retract and collapse. Acute gastritis is a frequent accompaniment of gastric hemorrhage and probably has some etiologic relationship to it. It is more frequent in the acute, than in the chronic ulcer.

Finsterer of Vienna, a notable representative of the radical school of surgery for peptic ulcer has advocated immediate operation in case of hemorrhage from peptic ulcer, but it is scarcely credible that he carries out such a practice as a routine in treating the exsanguinated patient who is seen in a state of collapse during, or immediately after a massive hemorrhage. The majority of surgeons, may we say, less radical, hesitate to operate on such cases unless the hemorrhage recurs before the patient has recovered from the initial hemorrhage.

Success is greatly enhanced by choosing a hemorrhage-free interval (if available), when the patient is in fairly good condition permitting a rapid operation under local anesthesia chiefly. This is accompanied by an adequate amount of transfused blood followed by good supportive and nursing care.

Success also depends on finding the ulcer and its bleeding point promptly at laparotomy. An empty clean, relatively dry-air dilated stomach is ideal. Transillumination and inspection with the Rovsing gastroscope or direct inspection through an anterior incision is readily carried out. It should be borne in mind that a gastric ulcer usually lies along the lesser curvature and a bleeding duodenal ulcer on the posterior wall near the pancreas.

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A direct type of operation with excision of the inflamed area assures of better end results but carries generally greater operative risk.

It is the test of a master surgeon to detect the correct time for intervention and to choose and execute the needed procedure after accurately locating the bleeding point. His choice has a wide range and includes simply backing out from parenchymatous hemorrhage, ligation or suture with or without packing of a bleeding point, "under-pinning sutures," ulcer inversion, ulcer excision with knife or cautery and with gastric or duodenal mobilization, pyloroplasty, gastrojejunostomy, or gastric resection.

In instances of interval bleeding from gastric or duodenal lesions with variable degrees of recovery the question of surgical intervention can be approached more casually. In the duodenal ulcer with recurrent hemorrhages or intractable healing with a history of one known massive hemorrhage that threatened the individual's life I believe some direct surgical attack is indicated. In the gastric ulcer with or without severe bleeding, but intractability as regards healing, surgical treatment should be undertaken early because of the danger of the lesions being malignant.

Fortunately for us, not many cases requiring immediate surgical intervention come to our attention.

CASE REPORT

During the past year I have only operated one such case. This was a man I attended with another colleague at the Douglas County Hospital. The patient was a white man fifty years old. He had been hospitalized on previous occasions for duodenal bleeding. On his last admission in January he had bled severely at home and continued to bleed in the hospital. After 3* hours of the usual routine with small slow transfusion of blood, bleeding continued and it was obvious the man was going to expire if something wasn't done. Accordingly, we gave him more blood, supplied ourselves in advance with still more, and did a laparotomy under Cyclopropane anesthesia. The duodenum and pyloric portion of the stomach was opened, as is commonly done prepared for a Finney type of pyloroplasty. With difficulty the ulcer was located on the posterior surface of the duodenum. It was a little more than one centimeter in diameter and presented no single bleeding point but oozed from its entire surface. Closure of the ulcers was accomplished with interrupted sutures of fine cat gut. Then the pyloroplasty was completed in the usual manner.

The post operative convalescence was satisfactory and the patient has remained symptom free to date.

In conclusion I wish to emphasize what I have previously stated: In certain emergencies associated with gastric bleeding, we are satisfied to carry out surgical measures to control the hemorrhage and save the patient's life. In cases where the physical condition of our subject warrants it, we attempt a complete extirpation of the pathology by some form of subtotal gastric resection.

REFERENCES

Edwin J. Grace: Control of Massive Esophageal Hemorrhage Secondary to Liver Damage. (Cirrhosis by ligation of coronary vein and injection of sodium morrhuate). Annuls of Surgery, 1942, page 387.

D. G. Duffy: Fatal Bleeding from Esophageal Varicosities. Medical Journal of Australia, 1944.

H. J. Moersch: Treatment of Esophageal Varices by Injection. Staff Meeting of Mayo Clinic, March geal Varices. Archives of Surgery, 1940, page 1101.

Walters; Moersch; McKinnon: Bleeding Esopha- 20, 1940.

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Gonorrhea patients have been effectively treated with one large dose of penicillin injected into the upper arm muscle after thorough chilling of the area with ice, according to a report appearing in the AMA Journal, 130:627-630, 1946. This chilling is done before and after the injection to prolong the effects of the drug.

Lieut. Commander Max Trumper, from the Naval Medical Research Institute, and Commander Gershom J. Thompson, from the U. S. Naval Hospital, say that they treated 100 patients who had uncomplicated gonorrhea. These patients were divided into three groups, group one receiving 50,000 units of penicillin dissolved in a salty solution, group two receiving 70,000 units, and group three 100,000 units.

The resultant cures in the first two groups were 77.3 per cent and 85.7 per cent respectively. The 100,000 unit dosage cured 91 per cent of the patients. Commenting on this, the authors say that "this percentage compares favorably with the results obtained by others."

Hemorrhage from the Small Bowel*

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When bleeding occurs from the small intestine, the character of the hemorrhage depends on the quantity of blood which is lost, and on the location of the bleeding point. If the quantity of blood is very small, it will be demonstrable only as occult blood in the stool; if the quantity is moderate, it will be evident as melena in which the stool will be described as tarry. Red blood in the stool rarely occurs from hemorrhage from the small bowel and only if the hemorrhage is massive. The occurrence of blood in the gastric contents may be due to bleeding from the small bowel if the bleeding occurs in the duodenum and the blood is regurgitated into the stomach. The consideration of the small bowel alone is only for purposes of convenience in the present discussion and not because there are any characteristics about hemorrhage from the small bowel which differentiate it sharply from hemorrhage from the other parts of the gastro-intestinal tract.

In the present phase of the discussion we shall consider only those conditions in which bleeding occurs due to diseases which involve the small bowel primarily and exclude all general diseases which cause such bleeding. Among such intrinsic causes of bleeding from the small bowel we must consider:

1. Duodenal ulcer.
2. Postoperative jejunal ulcers.
3. Mucosal hemorrhages.
4. Intussusception.
5. Thrombosis of mesenteric artery.
6. Thrombosis of mesenteric veins.
7. Tumors.
8. Meckel's diverticulum.
9. Typhoid ulcers.
10. Trauma.

The consideration of these various conditions will be taken up individually since they have little in common beyond the bleeding, and the differential diagnosis from other conditions in which bleeding does not occur is more important than their differentiation from one another.

Duodenal ulcers are the most common and most important cause of hemorrhage from the small bowel. The diagnosis of a bleeding duodenal ulcer is usually not difficult because of the history and x-ray findings. In most instances the ulcer has been diagnosed before the bleeding occurs.

The diagnosis of postoperative jejunal ulcer may be suspected when the patient has melena and a recurrence of ulcer symptoms. It may be difficult to prove the diagnosis. The occurrence of free acid in the gastric contents is suggestive and demonstration of an ulcer crater is confirmatory. These patients often complain of pain in the back. Persistent hyperacidity after operation stands out as the most important one bearing on the etiology of post operative jejunal ulcer.

Mucosal hemorrhages have been described by many of the pathologists notably Virchow and Kaufman. They consist of small hemorrhages in the gastric and intestinal mucosa due to increased venous pressure occurring in such conditions as cardiac disease, cirrhosis of the liver, emphysema and violent vomiting. Numerous small mucosal veins have no anastomoses and for this reason vigorous spasmodic contractions of the muscularis will produce intense venous congestion of the mucosa resulting in hemorrhagic areas which may ulcerate.

Intussusception occurs chiefly in infants. It may result from irritation from cathartics, from nervous incoordination and from anatomical peculiarities which permit excessive mobility. When it occurs in the small bowel it is usually due to a Meckel's diverticulum. The effects of intussusception depend on whether there is interference with the blood supply. If there is, the symptoms are those of obstruction and strangulation. The vigorous muscular contractions of the sheath produce venous congestion of the contained part with bloody effusion. Twisting of the mesentery may cause strangulation.

Thrombosis of the mesenteric vessels is quite common and is important because it may readily be confused with other conditions. It may be either arterial or venous. The two types present entirely different clinical pictures. Arterial thrombosis usually involves the superior mesenteric artery and is due to arteriosclerosis of the abdominal vessels. Involvement of the inferior mesenteric artery is less important because of communications with the superior mesenteric vessels above and the hemorrhoidal vessels below. Clinically there is a sudden severe abdominal pain, with nausea and vomiting. The abdomen is tender and rigid. The blood pressure and temperature fall. The abdomen becomes distended. If bowel movements occur they are bloody. Clinically it might be confused with perforation. Pathologically the affected portion of the bowel is infarcted, usually the jejunum or lower ileum. The wall of the bowel is infiltrated with blood and the lumen filled with blood. Gangrene of the bowel ensues.

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Thrombosis of the mesenteric veins is more common. The onset and course are slow. Pathologically there is hemorrhagic infarction of the bowel without gangrene. Blood is always present in the stool and spontaneous recovery may occur. The clinical picture is that of intestinal obstruction due to ileus.

Postoperative intestinal hemorrhages are not unusual following abdominal operations. They are caused by thrombosis in either the arteries or veins. They are probably due to infection and occur during the first postoperative week.

A rise in the platelet count after surgical operations is a well established fact and is a contributary factor in post-operative venous thrombosis. This rise begins the fourth day after operation and attains its maximum on the tenth day. The platelet count thereafter gradually drops and reaches normal by the twenty-first day. This period of hyperthrombocytemia corresponds with the period in which venous thrombosis generally occurs. There is also a second thrombogenic factor, an increased agglutinability or adhesiveness of blood platelets.

Tumors of the small bowel are rare but when present usually cause hemorrhage. Tumors that have been reported include polyps, carcinoids, lipomas, papillomas, adenomas, hemangiomas, leiomyomas. They all produce melena and severe anemias and all produce ulcer symptoms. They can sometimes be demonstrated by x-ray examination. The important points in their diagnosis are ulcer symptoms with no evidence of ulcer on x-ray examination, melena, severe anemia.

Meckel's diverticulum is sometimes the cause of persistent melena and when this occurs it appears to be due to the presence of gastric mucosa in the diverticulum which is the site of a peptic ulcer.

Typhoid fever is also included among the causes of bleeding from the small bowel. This is usually not a difficult diagnosis since the diagnosis of typhoid is usually made before the hemorrhage occurs and hemorrhage is a common complication of typhoid fever. The ulcerations are confined to Peyer's patches in the terminal portion of the ileum. The ulcerations are longitudinal and opposite the mesentery. The hemorrhage occurs in the second to fourth week of the disease at the time the slough is separating. The bleeding occurs suddenly and may be very severe. Osler refers to hemorrhagic typhoid.

Melena may also result from trauma to the abdomen. The diagnosis is usually not difficult and depends on the history. Foreign bodies which have been swallowed may traumatize the mucosa and cause hemorrhages.

The treatment of bleeding peptic ulcers is a controversial subject in many respects but there are now certain principles which seem to be quite well established. Massive hemorrhages from duodenal ulcers in persons under 45 years of age are rarely fatal. The mortality rate is less than one per cent with conservative treatment. In persons over 45 years of age, the mortality rate is about 20%. The difference is due to arteriosclerosis in the older group.

The principles of the conservative treatment of bleeding ulcers are quite well established. The details of the treatment are controversial. The principles consists of absolute rest until the hemorrhage has stopped. Appropriate measures to combat shock. When vomiting is absent, the usual ulcer treatment may be started consisting of frequent feedings and antacids. The indications for transfusions are a pulse rate over 120, systolic blood pressure under 90 and erythrocyte count under 3,000,000. The immediate indication in treatment of hemorrhaging peptic ulcer is to combat the hemorrhage and the shock resulting therefrom. Treat the ulcer as soon as possible.

In the older age group in which hemorrhage is far more serious and in which the mortality rate is high, it is important to abandon medical treatment, when it appears to be failing before hemorrhage occurs.

The treatment of all of these conditions in which serious hemorrhage occurs consists of first treatment of the hemorrhage and second treatment of the causative pathological condition. The first indication is to treat the shock, second to restore the blood volume when the blood loss has been great, third to correct the causative pathology if possible.

The physiological effects of the hemorrhage itself depend on the quantity of the blood which is lost and the rate of the bleeding. When more than 40% of the blood volume is lost the body is unable to restore the loss and unless transfusions are given death will ensue. The whole blood constitutes about 9% of the body weight and the blood plasma 5%. The volume of the blood is first restored by the withdrawal of fluid from the tissues, and this takes place rapidly. The blood cells are gradually restored.

Severe hemorrhage calls into play a number of protective mechanisms, some immediate and others delayed. If a large volume is lost suddenly, as from an artery, the blood pressure drops due to loss of blood volume since this is one of the factors on which blood pressure depends. If the blood is lost slowly it has little effect on blood pressure because the volume can be maintained, by withdrawal of fluid from the tissues. This decrease in blood pressure is of some advantage since it tends to control the hemorrhage and is especially important clinically because it is one of the immediate signs.

A second immediate effect of severe hemorrhage is an increase in the heart rate. This is also a useful clinical guide as to the extent and the progress of the hemorrhage. The increase in pulse rate is brought about by several factors, namely. stimulation of aortic and carotid reflexes by decreased blood pressure, stimulation of the cardiac center in the medulla by anoxemia, by liberation of adrenalin.

A third effect of severe hemorrhage is to produce a contraction of the spleen with the discharge into the circulation of a large quantity of blood cells.

A fourth effect of severe hemorrhage is on the respiration. Decreased oxygen supply to the respiratory center stimulates the depth and the rate of respiration. Air hunger and Cheynes-Stokes respiration may ensue.

A fifth effect of severe hemorrhage is on the distribution of the blood which is brought about by vaso constriction of small blood vessels in the skin, mucosa and other areas so that sufficient blood flow may be maintained to all vital organs such as the brain and the heart. This is shown clinically by pallor of the skin and lips and by coldness of the extremities. This mechanism tends to raise the blood pressure.

A sixth factor is the clotting of the blood. The blood clots rapidly in an attempt to stop the bleeding point. Following a severe hemorrhage the clotting time decreases, and the platelet count increases.

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HABIT-FORMING PROPERTIES OF PAIN RELIEVING DRUG EMPHASIZED

Emphasizing the fact that Demerol, a substitute drug for morphine, has habit-forming properties, H. J. Anslinger, Commissioner of Narcotics, Washington, D. C., writing in the July 13 issue of The Journal of the American Medical Association, says:

"Now comes an article by Paul de Kruif in a recent issue of the Reader's Digest entitled 'God's Own Medicine—1946' under the headline 'The pain-fighting power of demerol is as miraculous as that of morphine—without the opiate's danger of addiction.' This article adroitly makes no reference to the work of Dr. C. K. Himmelsbach of the United States Public Health Service and Drs. Hans H. Hecht, Paul H. Noth and F. F. Yonkman of Detroit, all of whom warned of the danger of addiction.

"Demerol was placed under federal narcotic control by the Congress because of evidence given before that body of its dangerous properties. Some of the persons referred to in de Kruif's article could have attended the hearings before the Ways and Means Committee and could have testified as to what they thought about the drug, but they elected to remain silent.

"I fear a wave of Demerol addiction if physicians who read this article believe what I consider the reckless and dangerous statements made by de Kruif that the drug is free from addiction properties. This is information somewhat similar to that which appears in the circular distributed by the manufacturer of Demerol to push sales. Had this article been prepared on a strictly scientific basis it would have sounded a strong warning about the danger of addiction. Our files contain numerous cases of addiction involving the use of Demerol."

Demerol, also known as Dolantin, was discovered in Germany and made its appearance several years ago in the Argentine. The author points out that both of these countries immediately placed the drug under strict control.

Vincent's Anginal Infection of the Throat*

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The prevalence of Vincent's Infection last fall has prompted me to write a paper upon this subject.

I. HISTORICAL

Oral spirochetes were probably first seen by Leevwenhoek. The disease (Vincents angina and gingivitis) has been recognized since antiquity. Aretaeus described what was probably the angina and Celsus refers to a foul and red inflammation of the fauces. Treponema buccale was described by Cohn(6) in 1875. T. Dentium was referred to by Koch(18) in 1877.

The first association of oral spirochetes and disease was by Leyden and Jaffe(21) in 1867. Viellon(42) in 1894 described T. dentium and T. dentucula with fusiform bacilli angina of the tonsils. Plaut(28) in 1894 saw the same organisms and gave an important account of the disease. Vincent(43) who gets credit for the name did not appear in the literature until 1896 and 1898 when he described spirochetes in angina of the larynx as well as in hospital gangrene. He described the spirochete which Blanchard(2) in 1906 named T. Vincenti (the name spironema Vincenti has at times been used as this organism has not always been considered a true treponema. It follows therefore that T. Vincenti is a specific form and not a term to include all mouth spirochetes of which there are several that can be found to be associated with the fusiform bacilli. It also follows that Vincent described an infection of tonsils and larynx with some tendency at least to respiratory embarrassment (the term angina from the Latin, Angere: to choke implies this). Hence the term Vincent's angina as commonly used for gingivitis or stomatitis, regardless of cause, is really incorrect. The up-to-date correct bacteriological name for this group of organisms is Borellia (eg Borellia Vincenti). This name is found in recent texts of bacteriology, protozology, parisitology, etc., and Journals on these subjects. Though it is seldom seen in clinical literature as yet.

II. BACTERIOLOGY

A. Spirochetes.

1. Forms found in mouth.

a. Small T. Microdentium T. mucosum.

b. Intermediate T. macrodentium T. Vincenti.

c. Large T. Bucale.

d. Others.

T. Orthodontium and T. Skolildontium reported by Hoffman(14). (Very small).

2. Morphology:

a. T. Microdentium: Very small .2-.25u width, 3-12u in length, 6-18 or more coils. The older organisms are the more highly coiled. Is motil but may lie still or rotate rapidly as well as move.

b. T. Mucosum: About the same as T. Microdentium.

c. T. Macrodentium: Larger .4-45u in width, 4-15u long, larger, coarser coils than above forms. May tend to unwind coils while moving.

d. T. Vincenti: .3-.5u in width, 5-20u long, coils very irregular. Movement rapid and serpentine.

e. T. Buccale: Much wider .6-.8u in width, 3-25u long. Making two sides recognizable while the others appear as threads.

3. Cultural Characteristics:

a. T. Microdentium and T. Mucosum grow in pure culture by Noguchi(23), Smith(33), Rosebury and Foley(29) and others. Is a strict anaerobe. Is difficult to separate from other organisms. Requires fresh body fluid of some kind (Plasma ascites, etc.), with some actual tissue (guinea pig kidney is particularly suitable: Rosebury and Foley(29)). Grows best in neighborhood of other organisms such as fusiform bacilli, or in media in which they have been grown. Various methods have been devised such as Noguchi's deep tubes (stab cultures) and the plates of Rosebury and Foley in which a little well is made in the agar and shallow stabs made from its sides. The culture must be covered with petrolatum or grown in CO_2 or hydrogen to exclude the oxygen. Produces a characteristic foul odor on culture.

b. T. Vincenti: Probably never grown in pure culture (Rosebury and Foley(29)). In mixed cultures it requires the same anaerobic conditions. Produces no odor. (Hence cannot be the sole spirochete in so called Vincent's Infection).

c. T. Buccale probably first isolated by Tunnicliff (Ruth(38)). Also by Smith and others.

Technique is very difficult and this organism has been grown in pure cultures rarely. Odor of cultures is characteristic but not foul.

B. Fusiform bacilli:

1. Several types: Some motile and some not, hence a heated controversy for years.

2. Second controversy whether or not fusiform bacilli and the spirochetes are entirely separate forms or different phases of the same organisms. This controversy is not settled.

Vincent (loc cit) Larson and Barron(20), Perthes(26) and many others have maintained the latter view. More recently it has been defended by Jacobs and Rosebury and Foley (loc cit). These last authors find all stages between spirochetes and fusiform bacilli in their other cultures.

Muhlens and Hartman(22) and other papers together with several other authors maintain that spirochetes and fusiform bacilli are entirely different forms. Tunnicliff claimed to have obtained spiral forms like T. Vincenti from cultures of the fusiform bacillus. Sanarelli(30) produces the most convincing evidence in favor of identity of these forms. The idea has been firmly enough established among some bacteriologists so that the term fusospirochete has been coined and is not infrequently used.

3. Several types of fusiform bacilli have been cultured. The chief workers being Tunnicliff (loc cit) and Smith (loc cit).

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III. PATHOGENESIS

Probably the most common diseases caused by Fuso-spirochete combination are necrotic gingivitis commonly and incorrectly called Vincent's Angina and an infection of tonsils, palate, and larynx which is the condition referred to by Vincent. Plaut (loc cit) and Viellon (loc cit) are the chief figures in associating these conditions with spirochetes and fusiform bacilli.

Some idea of the wide spread capabilities of this combination may be had from a list of conditions of which Smith (loc cit) devotes individual chapters in his excellent monograph.

(1) Fuso-spirochetal angina. (2) Necrotic gingivitis. (3) Noma. (4) Pyorrhea alveolaris. (5) Periapical infections. (6) Infections following extractions of teeth. (7) Ludwig's Angina. (8) Eye infections. (9) Infections of ears and mastoid cells. (10) Infections of nose and sinuses. (11) Infections of the tongue. (12) Infections of the esophagus. (13) Infections of the larynx and trachea. (14) Infection of the meninges and brain. (15) Pulmonary abscesses and gangrene. (16) Bronchiectasis and many other respiratory diseases. (17) Infections of the intestines. (18) Appendicitis. (19) Tropical ulcer. (20) Non-tropical skin infection. (21) Hospital gangrene. (22-23) Male and female genitalia. (24) A miscellaneous list.

Any of these can complicate primary disease of the mouth.

Additional reports and papers give the following (very incomplete as a thousand references could certainly be found). Larson and Baron (loc cit) isolated the fusiform bacillus from the blood of a patient with oral infection and osteomyelitis.

Williams(45) reports two cases of arthritis, one probably secondary to infected tonsils, the others to a rat bite, which gave positive blood cultures. Palmer(24) was able to infect a rat and recover the organisms by injecting blood from a case with prolonged illness including among other things muscle and joint pains and pericarditis. Like Smith, Haygood(33) has pointed out the association with pulmonary gangrene and bronchiectasis occurring by extension from the mouth.

Piergili(27) reports a rapidly fatal extension after extraction of a tooth.

Kirkpatrick and Clements(17) have shown that a malignant infection (7% fatal) called "New Guinea Mouth" is a fuso-spirochetal infection.

Good(33) has pointed out the involvement of the sublingual gland.

IV. ETIOLOGICAL FACTORS

In general it is agreed that spirochetes, not Vincents alone as shown by the foul odor of T. microdentuim in culture and fusiform bacilli, are the responsible organisms. Other factors including general condition, trauma, diet, even hormone unbalance are considered, as it is well known that the above organisms are common in the normal mouth. Up to 25% or more normal mouths give positive cultures (Smith loc cit). Davis and Pilot(8) claim that rich cultures can be obtained from all periapical pockets. It is strange that one finds little or nothing on the importance of the introduction of new strains to which the individual is not accommodated, or virulent strains especially in epidemics.

The secondary factors include anything injuring the resistance of the tissues. (Lowering "tissue tone" is the rather indefinite way that Schluger(31) puts it). Dietary deficiency is the most discussed factor especially as regards Vitamin B_2 and C.

Tunnicliff, Fink and Hammond(40) show that dogs on a pellagra diet develop Vincent's infection.

Topping and Fraser(37) were able to produce typical lesions in monkeys on diets deficient in Vitamins B_2 and C. No lesion could be produced even after trauma while the monkeys were on a normal diet. Denton(10) in a paper on pellagra found Vincent's infection practically universal in this disease.

Goldman(11) carefully studied a monkey dying from dietary deficiency on ship board. He found the typical pathological and clinical picture of a severe Vincent's infection and concluded that the condition is primarily dietary with the organisms as secondary invaders.

Kirkpatrick and Clements(17) (loc cit) report marked improvement in clinical cases on giving Vitamin C and Brewers yeast. Thoma(35) speaks of two stubborn cases making prompt and complete recovery on 100 mg. nicotinic acid per day. The high incidence in debilitated people is well known.

Daley(7) pointed out an increased incidence in the spring due to fatigue and sedentary life of people through the winter months. Ziskin(46) has demonstrated that low estrogen levels decreases the resistance of the mucous membranes and may be a possible factor.

PATHOLOGY

The best accounts are by Thoma(36), Kronfield(19) and Smith(33). Earlier accounts by Vincent and Tunnicliff.

In mucous membrane involvement there are three zones. First a superficial necrotic layer with dead tissue and all varieties of bacteria. Second a practically necrotic zone containing some spirochetes. Fusiform bacilli predominates here and often occur in enormous numbers in a so-called palisade arrangement. There are moderate numbers of small lymphocytes and monocytes. Neutrophiles are present but not numerous. Some of the cells, but not nearly all are necrotic. Many of the vessels are thrombosed and may be invaded by organisms. Third a zone predominated by spirochetes (special methods such as Levaditis stain are required to bring them out). The tissue looks quite normal here. The spirochetes in this normal looking tissue points toward their being the most important member of the fuso-spirochetal combination.

In milder types the zone invaded by spirochetes is narrow or absent. In Noma the same three zones are present but the necrotic zone is much more extensive and the lack of cellular reaction is striking. In necrotic gingivitis the tissue picture is quite the same. Organisms abound in any case and can be readily demonstrated microscopically or cultured.

Cahn(5) points out that the organisms penetrate rather deeply, and that the chorium as well as the epithelium are involved. The clinical appearance is well known including the swelling. redness, frequent pseudomembrane (which is the necrotic zone) the bleeding ulcerated surface, the retraction of dental papillae, the foul odor, etc.

The white count is usually not high. There are some reports of a relative lymphocytosis (Bryant(4)). According to Thoma (loc cit) 10,000 is about the expected count. The count may be low as these infections often go with malignant neutropenia (agranulocytis angina) but are almost certainly secondary to primary blood dyscrasia in such cases.

TREATMENT

In general the striking thing is the lack of mention of treatment other than local and dietary in any of the journals. Dentists generally refer their bad cases to the throat specialist. For years I have used locally Cresatin, peroxide and various antiseptics, but I have fund in the average case 4.5 mgms. neosalvarsan intravenously will give quicker results than any other treatment. In some cases this may have to be repeated in 48 hours. I have found the following prescription very beneficial for a home gargle, diluted with equal parts water:

℞ Wine of Ipecae, drams VI
Sol. Potass. Arsenitis, oz. II
Glycerine, oz. I
Peroxide, Qs. ad., oz. XVI

Ultraviolet light either Kromeyer or air cooled is a valuable adjunct. Recently a rather extensive literature has grown up on the use of Penicillin. Almost all authors are enthusiastic in its support. Here are a few examples.

Pierce and McDonald(25) report excellent results with penicillin sodium in a preliminary study. Herrell(13) has found penicillin highly effective and recommends both local application of a solution of 1,000 oxford units per cc., and systemic treatment with 80,000 units per day. Denny, Schullenberger and Pyle(9) have used a solution of 250 units per cc., swabbed four times a day for three days. Also systemic treatment as well. They report rapid disappearance of symptoms.

Imperatori and Burman(15) recommend Sodium per borate, two teaspoonsful to the glass of water and used as a mouth wash frequently. Hydrogen peroxide on a cotton tipped applicator is used to remove exudate and membrane. Potassium chlorate administered in two-grain doses, three or four times a day. Salvarsan 10% in glycerine is highly esteemed. Copper sulphate or silver nitrate in 10% solution can be used locally.

I have found the following prescription a sovereign remedy:

℞ Vini ipecacuanhae, oz. ½
Glycerini, dram 1
Liquoris arsenatis qs. ad, oz. 1
Sig: Apply locally to the ulcers.

Herbert S. Birkett recommends removing the exudate by any aklaline spray and when the ulcerated area is thoroughly cleansed by hydrogen peroxide to apply liq. arsenicalis. This should be done four times a day. In obstinate cases he uses neosalvarsan 1/12 gr. with 2 drams water.

I am indebted to Dr. Kurt Tschiassny of Cincinnati for the suggestion of using a saturated agucous solution of ferric chloride topically.

In summation I believe Penicillin will prove very efficaecous, Neosalvarsan 4.5 intravenously, and peroxide locally should be used. It is imperative that in the case of any tonsil involvement that one swab thoroughly to the bottom of any pockets. Dr. Shea(32) of Memphis recommends Sodium cacodylate gr. V intravenously 100 to 200 mg. in 5 cc. ampule.

REFERENCES

1. Birkett, Herbert S.: (Jackson & Coates Text B. Saunders 1929, P. 289).

2. Blanchard: (Arch. F. parisitol Bd. 10 S. 129, 1906).

3. Bock: (Munchen Med. Wehschr Bd. 8 F. S. 786, 1938).

4. Bryant: (J. Dent. Res. V. 9. P. 284, 1929).

5. Cahn: (J. Dent Res. V. 9. P. 695, 1929).

6. Cohn: (1875 Beitiz biol. Pflanz Bd. 3, S. 199).

7. Daley: (J. A. D. A. Vol. 18, P. 1025, 1931).

8. Davis and Pilot (J. A. M. A. Vol. 79, P. 944, 1922).

9. Denny, Shallenberger, and Pyle: (J. Okla. Med. Accos. V. 37, P. 193, 1944).

10. Denton: (Am. J. Trop. Med. Vol. 5, P. 173, 1925).

11. Goldman: (J. Orthodontics and Oral Surg:, Vol. 29, P. 480, 1943).

12. Haygood: (Dent Items of Interest Vol. 60, P. 25, 1938).

13. Herrell: Penicillin and other antibiotic agents, W. B. Saunders Co., Phila., P. 246, 1945).

14. Hoffman (Deutch. Med. Wch. chr. Bw 46 S. 257, 1930).

15. Imperatori and Burman: (Lippincott Text Book P. 313, 1935).

16. Jacobs: (J. A. D. A. Vol. 30, P. 392, 1943).

17. Kirkpatrick and Clements: (Dent. J. Autralia Vol. 2, P. 1, 1939).

18. Koch: (Beitrz Biol. Pflanz 1877 S. 421).

19. Kronfeld: (Hist. Path. of Teeth etc., Lea & Febriger, Phila., 1933).

20. Larson and Barron: (J. Inf. Disease, V. 13, P. 429, 1913).

21. Leyden and Jaffe: (Deutche Arch. F. Klin Med. Bd. 2, S. 488, 1867).

22. Mullens and Hartman (Zeit F. Hyg. and Inf. Krank Bd. 60, S. 92, 1906).

23. Noguchi: (J. Exp. Med. Vol. 15, P. 81, 1912 and same Vol. 16, P. 194, 1912).

24. Palmer: (South. Med. J. Vol. 31, P. 530, 1938).

25. Pearce and McDonald: (J. A. M. A. Vol. 128, P. 342, June 2, 1945).

26. Perthes: (Arch. F. Klin Chir. Bd. 59, S. 111, 1899).

27. Piergilli: (Stomatol. Vol. 27, P. 424).

28. Plaut: (Deulshe Med. Wehschr Bd. 20, S. 290, 1894).

29. Rosebury and Foley: (Proc. Soc. Exp. Biol. and Med., Vol. 47, P. 368, 1941).

30. Sanarelli: (Ann L'inst Pasteur T. 41, P. 1, 1927; Dela. Soc. De biol. T. 91, P. 1136, 1927).

31. Schluger: (J. A. D. A. Vol. 13, P. 524, 1943).

32. Shea: (Memphis L. A. Midwinter, Clinic 1945).

33. Smith Haygood (Dent Items of Interest, Vol. 60, P. 25, 1938).

34. Strock, A. E.: (J. A. D. A., Vol. 3, P. 1235, 1944).

35. Thoma: (Am. J. Orthodontics and Oral Surg., Vol. 27, P. 479, 1941).

36. Thoma: (Oral Path., C. V. Mosby Co., St. Louis, 1941).

37. Topping and Fraser: (Pub. Health Rep., Vol. 54, P. 416, 1939).

38. Tunnicliff (Ruth): (J. Inf. Dis., Vol. 3, P. 148, 1906).

39. Tunnicliff: (J. Inf. Dis., V. 13, P. 280, 1913).

40. Tunnicliff, Fink and Hammond: (J. A. D. A., Vol. 23, P. 1959, 1936).

41. Tunnicliff: (J. Inf. Dis., Vol. 25, P. 132, 1919).

42. Viellon: (Arch D. Med. Exp. d'anal T. 4, P. 161, 1894).

43. Vincent: (Ann Del'inst Pasteur T. 10, P. 161, 1894).

44. (Hull de la Soc. Med. Des. Hosp. De. Paris, 1898).

45. Williams: (Arch. of Int. Med., Vol. 68, p. 80, 1941).

46. Ziskin: (J.A.D., Vol. 25, p. 422, 1938).

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Proceedings of the Staff Nebraska Methodist Hospital*

JOHN R. SCHENKEN, M.D., Editor

I. The Treatment of Carcinoma of the Bladder by Dr. Payson Adams and Dr. H. B. Hunt

Dr. Adams: Members of the Medical Society and Methodist Hospital staff, my discussion of treatment of carcinoma of the bladder will be more or less from a clinical standpoint. I want to stress first that it is very important to have close correlation between the urologist and the radiologist in treatment of these lesions. I will discuss the general and surgical problem, particularly segmental resection, and Dr. Hunt will discuss the radiological aspects.

First of all, I should like to say that for practical purposes you can consider all epithelial tumors of the bladder as either malignant or potentially malignant. There is a group in the classification, the so-called benign papillomas, which may remain localized in the bladder for some period of time but tumors of this type often will become malignant eventually unless eradicated when first seen. Illustrating that fact, I had occasion recently to review fifty cases of tumors of the bladder seen at the Methodist and University Hospitals in the last eight years and in that entire group of cases there were only two so-called benign papillomas. One case was seen fourteen years ago and the other nine years ago. Both of them are now malignant. In other words, the lesions began as benign papillomas and there were multiple recurrences. Treatment has consisted of multiple fulgurations and X-ray therapy and one lesion is now a papillary carcinoma, the other a squamous cell epithelioma.

In this group of fifty cases there were some interesting statistics. The cardinal symptom of carcinoma of the bladder, hematuria, was present in 94 per cent of this group, some time during the course of the disease. It was the initial symptom and the first and only symptom in 82 per cent. Seventy-two per cent of the cases were men and the average age was 63. Of great importance is the point that it is gross hematuria that causes these patients to go to a doctor. You would think that with a simple symptom like that a patient would appear early for diagnosis. But the average length of time that hematuria was present in these patients before diagnosis was made was 18 months. That means that we are seeing these cases late. There were five in whom hematuria had been present for over five years and three in whom it had been present for over ten years. I want to stress again the importance of early diagnosis and I think that if we will emphasize the need for cystoscopic examination the patient will submit.

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*Delivered at a joint meeting of the staff of the Nebraska Methodist Hospital and the Omaha-Douglas County Medical Society, February 12, 1946.

Diagnosis is by cystoscopy. Anything less than that is not satisfactory. It is a simple office procedure and can be done under local anesthesia without much discomfort to the patient. Biopsy may be done on doubtful cases. Cystoscopy is important from another standpoint in the way of treatment. The cystoscopic picture is quite diagnostic as far as degree of malignancy. Most urologists feel that the cystoscopic appearance of a tumor is more important than the biopsy, although one should have a biopsy also in order to outline treatment. The attachment to the bladder wall is important. If it is a friable tumor with small attachment it is benign—the so-called benign papilloma. If it is a broad based tumor invading the mucosa, it is probably papillary carcinoma. If it is a solid tumor involving the entire thickness of the bladder wall, ulcerative perhaps and not much raised from the bladder mucosa, it is probably a squamous cell epithelioma, the most malignant of the three.

The site of the tumor is important in outlining treatment. Obviously, if it involves the trigone, the fixed base of the bladder or the vesicle neck, it cannot be removed by excision, so that you have to resort to transurethral procedures or suprapubic cystotomy and fulguration. If it is located in the vesicle neck or the trigone it is very easy to get at by transurethral approach. If it involves the pliable portion of the bladder, that is, other than the fixed base or the trigone, it can be removed by segmental resection if metastasis has not occurred and, in many cases, that is the method of choice. The site of predilection is around the ureteral orifices of the vesicle neck.

Until recent years we have felt that metastasis was a late manifestation and did not occur in a great many cases, but recently we find that metastases do occur earlier than we usually suspect. Spooner had a series of cases at the Mayo Clinic in which 29 per cent of them had metastasized in a group of 98 cases of infiltrating carcinoma by the time they came to autopsy. The point to be emphasized is that if we are going to outline treatment designed to cure the patient we must be sure that the patient does not have metastasis. Orr, in Orlando, Florida, made a survey of 26,000 tumors of the bladder through mailed questionnaires to urologists treating carcinoma of the bladder, and, of those replying, the largest group of urologists favored as their first treatment segmental resection. I mention that because I am talking primarily about segmental resection.

I want to show a number of cases to illustrate segmental resection. The first one, however, illustrates some other types of treatment which demonstrates the complexity of the problem.

The patient was 64 years old when I first saw her in 1939. She was one of the three cases in this group of 50 that did not have hematuria. There was a mulberry type of tumor about 1½ cm. in diameter just below the right ureteral orifice. Because of its location I treated that by electrical resection through the resectoscope and two weeks later the tumor was healing but still ulcerated and necrotic. Now, because that tumor was a squamous cell epithelioma, Grade III, and had invaded the muscularis, I did not feel that I had eradicated it. Therefore, cystoscopically I placed five platinum radon seeds, non-removable, in and about this tumor and out at the edge. One was placed in the middle, and the other four out around the periphery of the tumor. That patient was seen one and three months later with no recurrence. Fifteen months later she had a mulberry type of tumor located in the region of the left ureteral orifice. This was resected through the resectoscope and the base fulgurated. It was not as invasive as the previous one. The pathological report was the same, squamous cell epithelioma, Grade III. She was seen over a period of six months without recurrence and then she developed another recurrence above the right ureteral orifice, in an entirely different place, but the cell structure was similar. It was treated by resection and fulguration. For four years I saw her about every six months and she had no recurrence although she did have some small suspicious areas, and quite a little nodular cystitis with frequency and burning. These suspicious areas were fulgurated from time to time. In May, 1945, she had another recurrence in the dome of the bladder which was more invasive. It was a larger tumor, about 2 cm. in diameter, and since I hadn't dealt with these others satisfactorily I did a segmental resection. Examination of the tissue revealed a squamous cell epithelioma. I saw her in August and again in November, 1945, and she had had no recurrence. Her bladder looks infinitely better than it has at any time since I have seen her. All the cystitis is cleared up, the irritation is gone, she has no frequency and only gets up once at night.

It is interesting to note that following a major radical procedure much less difficulty was encountered than in following simple resections and fulgurations.

The next case is that of a white man, 63 years old, who had had hematuria for one year. He was treated by segmental resection and with re-implantation of the right ureter into another portion of the bladder wall. He returned in several months after operation, again in six months, and again in 1942 and 1943. At no time has there been any evidence of recurrence. His bladder looks fine. The tumor was a papillary carcinoma. The right ureter was mobilized and cut between two ligatures at its entrance into the bladder. The ureteral orifice and the tumor were removed, together with 0.5 cm. of the surrounding normal bladder wall by a circular incision. The ureter was then brought diagonally through the bladder wall and anchored with atraumatic catgut sutures. In order to prevent stricture formation, 0.5 cm. of normal ureter was allowed to protrude into the lumen of the bladder. Before operation there was not much hydronephrosis. Six months after, a very similar picture was obtained. As time has gone on there has been a little more hydronephrosis and diminution of function, and there is a little contracture of that kidney—it is a sclerotic kidney. There was some damage done to the kidney but certainly so far as the tumor of the bladder is concerned, he is cured.

Next is a white man 58 years of age who was seen in 1939 with an infiltrating papillary carcinoma, 2 cm. in diameter, attached by a broad pedicle above the right ureteral orifice. Segmental resection and reimplantation of the ureter was done. He also had another tumor, a papillary structure, at the vesicle neck on the posterior surface that I thought did not amount to much, so at the time of cystoscopy I fulgurated that area and removed part of it through the resectoscope. That patient has never had a recurrence of his tumor in the region of the right ureteral orifice but he had a recurrence about the vesicle neck—it was a papillary carcinoma, not controlled by resection and fulguration on several occasions. Finally, Dr. Hunt gave him deep x-ray therapy and, following that, his bladder looked much better and he has had no recurrences since. He was seen in January, 1946, seven years after his original operation and there was no evidence of recurrence.

Next is a case that did not turn out so well. This is a white male, 65 years of age, with an ulcerating, infiltrating type of tumor that was a Grade III or IV squamous cell carcinoma. Just above the trigone in the free portion of the bladder an area 3 cm. in diameter was removed by segmental resection. He only lived six months. The autopsy showed no recurrence of the tumor locally in the bladder, but he had metastasis in the liver. Obviously, he had metastasis before I operated on him and, if I had known that beforehand I would not have treated him as I did.

We had one other interesting segmental resection of the bladder in a white female, 73 years of age. When first seen in June, 1940, her history revealed a painless hematuria for 15 years. There was a pedunculated tumor in the dome of the bladder which was resected at that time. She was seen again in August 1940, November 1940, June 1941 and August 1945. Cystoscopic examinations on these dates were entirely negative. I will turn over the rest of the discussion to Dr. Hunt.

Dr. H. B. Hunt: My remarks on this subject will be very brief and informal. The radiotherapist is very glad to leave as much of the treatment of cancer of the bladder to the surgeon as the surgeon is willing to accept and handle. If it is possible to eradicate cancer of the bladder by surgical means, it certainly gives the patient less discomfort than when it is necessary to use radiation therapy, supplementary to surgery in the eradication of these lesions. Patients who are treated by radiation therapy always have a great deal of discomfort from dysuria and frequency. Some of them may have post-irradiation cystitis, even though their carcinoma is cured. Those who have recurrences and persistence of the disease are inclined to blame the radiotherapist for all the symptoms of their disease as well as the symptoms from irradiation which is not surprising, of course. Radiation is used, as I said, primarily as an adjunct to and supplementarily to surgery. Dr. Adams has pointed out how in some of these cases he has destroyed as much of the tumor as possible by electrosurgical means and when uncertain as to whether or not there was infiltration into the wall of the bladder he has implanted radon seeds which gave further destruction beyond what he dared to produce by means of the electrical current. The use of radon seeds is supervised primarily by the urologist and we have literally nothing to do with it. The main disadvantage which I have seen in radon seed work is that distribution of seeds tends to be concentrated in certain areas, leaving blank areas in between the seeds. The seeds are quite small. Once in position it is difficult to change the position although some of them do have threads on them so that they can be withdrawn and reinserted but, generally, once they are inserted they are there to stay. The seeds remain as foreign bodies and don't seem to give very much trouble—sometimes incrustations occur, according to Dr. Adams' observation.

The second method of radiotherapy used is the radon element in needles. In general, this requires a suprapubic cystotomy and insertion of the needles, which vary in length from ½ to 1½ inches, in a homogenous pattern through the tumor. It is possible to get a more homogenous and even distribution and irradiation by means of needles than with the radon seeds. The radium needles are removed completely after a period of five to seven days, depending upon the concentration of radium in the needles. One case of a carcinoma along the anterior aspect of the base of the bladder was treated by Dr. Adams and me in that manner. Dr. Adams removed as much of the tumor as could be scooped off electrosurgically and we planted six or eight radium needles through the base of the tumor. Dr. Adams tells me that the lesion disappeared, supposedly healed, and had a very satisfactory result. We have had others where the results were not so satisfactory. In general, those patients who have infiltration beyond the wall of the bladder are not apt to be cured by any procedure.

Another method which we use in the suprapubic cystotomy cases but is applicable only to those which are along the posterior aspect of the base of the bladder is the direct exposure of the tumor to x-ray projected in through the cystotomy wound. That requires making a special cone which is inserted into the bladder and the x-ray tube is brought up in apposition and the x-ray directed right down into the tumor. It is possible to give only one very caustic, intense dose. The one case which we have successfully treated in that manner also received some radon therapy in conjunction with the x-ray therapy but we both admit that the radon therapy in itself was totally inadequate to control the disease and I believe the x-ray therapy contributed that portion of the therapy which made it successful. The radon seeds were helpful.

Another method of radiation therapy which is employable in these cases is external radiation by means of multiple converging beams of deep x-ray therapy. About ten per cent of cases showing papillary tumors of the bladder will respond with disappearance of the tumor. If there is an infiltration of the bladder into the wall the disappearance becomes less complete and in those solid infiltrating carcinomas which Dr. Adams described, none of those cases are cured by deep external x-ray therapy. We are not advocating that these papillary tumors be treated by deep x-ray therapy externally. They should be treated by segmental resection, then fulguration if it is possible, to completely destroy them. Deep x-ray therapy will cause some of these larger papillary carcinomas of the bladder to become smaller and more readily and completely resectible. The value in that way is a preoperative one. In the advanced carcinomas of the bladder, deep x-ray therapy is of value as a palliative procedure. About 40 to 50 per cent of the cases show improvement.

The treatment of carcinoma of the bladder is a combined problem and I am glad to have the urologist carry the larger part of the burden, because these are difficult cases to handle from the standpoint of keeping the patient happy who has a painful bladder, frequent urination and distress. Dr. Adams has been very gracious and nice to work with in this matter and if all his patients are good natured it is largely due to the way in which he handles them.

Tuberculosis Abstracts

All control of communicable disease begins with notification that the disease is present in a certain person at a given address. Verification of the diagnosis may be needed. Search for contacts must be prompt and complete. Each person capable of infecting others must be so controlled as to be no hazard to the community. In tuberculosis patients, this is accomplished preferably by admission to a tuberculosis hospital. Finally, since tuberculosis is a silent and insidious invader, reliance upon complaint of illness by the patient or diagnosis without x-ray of the chest cannot longer be tolerated.

WHAT PUBLIC HEALTH EXPECTS OF THE PRIVATE PHYSICIAN

It is probable that less than half of the active cases of tuberculosis have been known to the authorities at any time in the past thirty years or are today so known. A recent report of the Minnesota State Board of Health states, "In 1910 there were more than three times as many deaths from tuberculosis as there were reported cases. Tuberculosis is a reportable disease, but it has never been adequately reported."

Thirteen states in 1944 showed a ratio of more than three cases of tuberculosis reported for each death from this disease, within the same year Wisconsin leading with 3.70 cases per death. Yet evidence is abundant that probably between seven and ten cases per annual death from tuberculosis could be discovered and reported if all resources of medicine were used to full advantage.

The citizen may well ask why! Is a requirement of the Board of Health, having the force and effect of a law, to be disregarded with impunity? May I respond to the title of my discussion by saying that the humblest expectation of public health is that physicians recognize tuberculosis prior to the patient's death and report every infected person receiving medical care, whether or not such patients are discharging tubercle bacilli.

Until the practicing physician reports all cases of tuberculosis whether open or closed, positive or negative sputum, to the Division of Health at once on making provisional or suspected diagnosis we of the public health workers in official and voluntary agencies cannot give the community, the family, the fellow workmen, a protection to which they are entitled.

The physician in private practice is not only the sole representative of society licensed to deal responsibility before the law with life and death, but he is the medical conscience of the community. Upon his precise, prompt, wholehearted cooperation, the structure of modern public health depends. If in a mistaken spirit of economic self-protection he opposes publicly adopted policies of disease prevention and control within the framework of sanitary law, he tends to undermine his professional prestige and provides ammunition for those who would challenge the present system of medical practice. Some physicians and even specialists in tuberculosis consider that apparently healed so-called reinfection type tuberculosis is of no concern to public authority and they accept no obligation to report such patients. This is a practice that interferes with both epidemiological and public health services indispensable to the proper functioning of a control system.

Among the factors leading to delay in the reporting of cases of tuberculosis is the physician's inclination to spare the feelings of patient and family by not declaring the diagnosis and then by attempting to care for the patient at home as long as the family pays for his services. I am not at the moment concerned with the ethical weakness of the physician's position in such cases, but solely with the effect upon the origin and spread of the infection in the community.

Home care of the tuberculous is of course possible but except under relatively rare conditions whether for the well-to-do or for the wage-earner, it is a distinctly second-best choice from the point of view of therapy and permits almost inevitable transmission of infection to household contacts. When we recall the high probability of infection of nurses under even rigid hospital discipline and with excellent equipment and management in sanatoriums, we cannot doubt the higher probability of such infection in home care of the tuberculous.

It is well to remind ourselves that the progress in control of tuberculosis has been in spite of incomplete and delayed reporting, in spite of the insidious and silent nature of early pulmonary disease and in spite of the lack of any specific resources for creating immunity or for cure in the chemotherapeutic sense.

We know so much we do not use that there is no excuse for discouragement. The question is one of relative speeds or progress, always with the hope that within our lifetime, our offspring will escape wholly what we know has decimated our predecessors and cruelly handicapped our contemporaries. When my grandparents made their home in New York City in 1838 the death rate from tuberculosis was not less than 300. Our grandchildren are living in the same city where a a rate of 45 is current today. We can guarantee freedom of the succeeding generations from tuberculosis if we undertake two programs — one of discovery of pulmonary tuberculosis disease and the other of isolation or adequate supervision of persons discharging the tubercle bacillus.

What the public health expects of the private physician is no more and no less than it requires of every other citizen, that is prompt compliance with the law. Popular opinion and medical tradition look to the medical profession with confidence to give accurate diagnosis, humane treatment to the sick and prevent the spread of communicable disease from the sick to the well. The medical profession has exercised the disciplines of education and of ethics among its members. Any failures of standards will be best corrected by the organized local and state medical societies.

King Edward VII of England, when told that tuberculosis was a preventable disease, asked why it had not been prevented. It can be prevented in our time if we use our present resources.

—What Public Health Expects of the Private Physician, Haven Emerson, M.D., Minnesota Medicine, January, 1946.

IS TUBERCULOSIS FULLY REPORTED?

The United States Public Health Service has released statistics on the number of cases of tuberculosis reported in relation to the number of deaths by states. The wide variations between states implies either that tuberculosis is much more frequent in some states than in others or that the thoroughness of tuberculosis case reporting varies widely. The evidence suggests that it is the recording of cases of tuberculosis in many parts of this country that is incomplete. Unless this deficiency can be remedied it is almost impossible to evaluate the tuberculosis problem in the United States. Physicians are responsible for reporting all cases of tuberculosis to their local health departments and should see to it that this obligation is fulfilled.

—Editorial, Journal of the American Medical Association, February 2, 1946.

ARMY PHYSICAL RECORDS POINT TO DANGER OF OVERWEIGHT

Overweight, emotional elevations of the blood pressure and acceleration of the heart beat are the forerunners of serious illness, according to four investigators writing in the July 20 issue of The Journal of the American Medical Association.

The investigators, Robert L. Levy, M.D., of New York, Paul D. White, M.D., of Boston, William D. Stroud, M.D., of Philadelphia, and Brig. Gen. Charles C. Hillman, United States Army, studied the medical records of 22,741 army officers which contained the results of annual physical examinations made between January, 1924, and December, 1941.

The authors predict from their study that overweight associated with the temporary elevations of blood pressure and rapid heart beat will lead eventually to the development of high blood pressure and diseases involving the heart, blood vessels and kidneys.

A group of men who during the period of study showed none of the predisposing factors were observed in comparison. The study reveals that the later development of high blood pressure was 12 times as great in the overweight group as in the comparison group. In the case of retirement from duty because of diseases involving the heart, blood vessels and kidneys, the rate was four times as great.

The Nebraska State Medical Journal

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Vol. 31 September No. 9

THE PLATFORM OF THE AMERICAN MEDICAL ASSOCIATION

The American Medical Association advocates:

1. The establishment of an agency of federal government under which shall be coordinated and administered all medical and health functions of the federal government exclusive of those of the Army and Navy.

2. The allotment of such funds as the Congress may make available to any state in actual need for the prevention of disease, the promotion of health and the care of the sick on proof of such need.

3. The principle that the care of the public health and the provision of medical service to the sick is primarily a local responsibility.

4. The development of a mechanism for meeting the needs of expansion of preventive medical services with local determination of needs and local control of administration.

5. The extension of medical care for the indigent and the medically indigent with local determination of needs and local control of administration.

6. In the extension of medical services to all the people, the utmost utilization of qualified medical and hospital facilities already established.

7. The continued development of the private practice of medicine, subject to such changes as may be necessary to maintain the quality of medical services and to increase their availability.

8. Expansion of public health and medical services consistent with the American system of democracy.

ANNOUNCEMENTS

C. W. M. POYNTER FOUNDATION

The C. W. M. Poynter Foundation has announced its first annual lecture to be held September 20, 1946, at the Joslyn Memorial, Omaha. The speakers will be Dr. Reuben G. Gustavson, Chancellor of the University of Nebraska, and Dr. Joseph S. D'Antoni, Associate Professor of Tropical Medicine at Tulane University Medical School. Dr. D'Antoni will speak at 3 p.m. on the subject "Clinical Parasitology," and at 8 p.m. on "Public Health Aspects of Parasitology." Chancellor Gustavson will speak at 8:30 p.m., on "The Place of the Medical School in the Middle West." A dinner for the guests is being arranged at the Blackstone Hotel at 6 p.m. Reservations should be made with Dr. John S. Latta, College of Medicine, University of Nebraska. Wives are included in the invitation.

TWENTY-EIGHTH ANNUAL SESSION OF THE AMERICAN COLLEGE OF PHYSICIANS

The American College of Physicians announces its twenty-eighth annual session to be held in Chicago, Ill., April 28 to May 2, 1947.

Dr. David P. Barr, New York, is President of the College, and will be in charge of the program of General Sessions and Lectures. Dr. LeRoy H. Sloan, Chicago, has been appointed General Chairman, and will be in charge of the program of Hospital Clinics and Panels, as well as local arrangements, entertainment, etc. Mr. Edward R. Loveland, Executive Secretary of the College, 4200 Pine Street, Philadelphia 4, will have charge of the general management of the session and the technical exhibits.

Other medical societies are urged to note these dates in order that conflicts in meeting dates may be avoided for mutual benefit.

SURGEONS AND OTHER DOCTORS TO GATHER IN INTERNATIONAL COLLEGE AT DETROIT

Detroit is host city to an outstanding group of surgeons and doctors at the Eleventh Annual Assembly of the United States Chapter, International College of Surgeons, at the Masonic Temple on October 21-22-23.

Featured at the impressive convocation on Tuesday evening, October 22 will be Joseph C. Grew, former Ambassador to Japan.

Sixty scientific speakers will present papers at the twenty-four meetings scheduled.

A random check of the plethora of eminent clinicians and instructors reveals:

FROM THE UNITED STATES: Rudolph Jaeger, M.D., Philadelphia; Channing W. Barrett, M.D., Chicago; Curtis Lee Hall, M.D., Washington, D.C.; Rudolph Nissen, M.D., New York; Edwin David Weinbert, M.D., Baltimore.

FROM EUROPE: Mr. Hamilton Bailey, London, England;

Professor Jacob Bitschai, Cairo, Egypt; Albert Jirasek, M.D., Prague.

FROM SOUTH AMERICA: Felipe Carranza, M.D., Buenos Aires, Argentina; Prof. Alejandro Ceballos, Argentina; David de Sanson, M.D., Brazil; Francisco Grana, M.D., Lima, Peru.

If you plan to attend, write to Louis J. Gariepy, M.D., 16401 Grand River Avenue, Detroit 27, Michigan for a program and detailed information.

Original certificates must accompany orders submitted by veterans for items of surplus property being sold by regional offices of the War Assets Administration, Gordon T. Burke, Omaha Regional WAA Director said today.

A number of veterans have been submitting photostatic copies of certificates, Mr. Burke stated, and these must be returned with a request for the original certificate. This added transaction causes delay in filling the veterans orders.

The original certificates will be returned to the veteran as soon as orders are filled, Mr. Burke said.

NEWS and VIEWS

The Very Rev. William H. McCabe, S.J., President of the Creighton University, has announced the appointment of Rev. Harry B. Crimmins, S.J., former president of St. Louis University, as regent of the Creighton University School of Medicine and College of Pharmacy.

Father Crimmins succeeds the Rev. John J. McInerny, S.J., who, in addition to the above positions, also has been regent of the School of Nursing and Dentistry for the past 15 years. Father McInerny on August 15 will become chaplain of St. John's Hospital, St. Louis, which is his home town. Father Crimmins recently was discharged from military service after serving as a Chaplain in the Army from 1942 to 1946, taking part in the African, Sicilian and Italian campaigns.

According to a recent release by the National Research Council, free supplies of streptomycin for us in experimental work on nine diseases, may be obtained from the National Research Council, the group announces.

As a result of the very limited amount of the new antibiotic, it is necessary to maintain strict allocations for clinical investigations.

The nine diseases which are to be investigated are gram negative sulfa-resistant genito-urinary bacillary infections; gram negative bacillary infections with bacteremia Hemophilus influenzae infections, including meningitis, pneumonia, middle ear disease and laryngotracheitis; Friedlander's bacillus pneumonia; typhoid; paratyphoid; acute brucellosis with bacteremia; tularemia; and bacterial endocarditis due to gram negative bacilli.

Only those patients with tuberculosis who were getting streptomycin before March 1, 1946, will be included in the allocations, according to present plans. There will be no charge to either physician or patient for streptomycin released through the council, whose work is supported by 11 pharmaceutical and chemical companies.

The State of Nebraska recently revoked the medical licenses of Drs. James C. Anderson and Philip T. Campbell, charged with second degree murder in the death of Marian Blyth.

Copies of the revocation orders issued by Dr. W. S. Petty, director of the Nebraska Department of Health, were received by Assistant County Attorney Philip Kneifl.

The orders state that from April 23 to 26, Drs. Anderson and Campbell "engaged in immoral, unprofessional and dishonest conduct, knowingly and wilfully failed to notify the proper authorities of the death of Marian Blyth; knowingly and wilfully failed to sign a death certificate; knowingly and wilfully, unlawfully disposed of the body by depositing it in the Missouri River."

Suicides in the U. S. have been on the increase since V-E day, although throughout the war there was a downward trend in the suicide death rate. The increase in suicide has been much more pronounced among men than among women. The sharp cutback in industrial activity with consequent unemployment as well as difficulties adjusting to civilian life were blamed for the increase by Metropolitan Life Insurance Company statisticians.

VETERANS, PLEASE NOTE

In response to hundreds of inquiries made by ex-servicemen regarding the new National Service Life Insurance Act which became effective on August 1, E. R. Benke, deputy administrator in charge of Branch 8 of the Veterans Administration, today warned veterans against too hasty conversion of their term policies.

"The best advice VA can give the average veteran right now," Mr. Benke said, "is to continue paying, at least temporarily, the same low premiums he paid while in the service. By doing this he can be protected by insurance until such time as he is in a position to afford the kind of converted insurance that will fit his needs. By no means should the veteran convert until he has solicited advice from a VA representative."

The new enactment, Mr. Benke says, offers the standard provisions to be found in commercial insurance company policies; provides for endowment types of policies which were not included in the original law; removes restrictions on the choice of beneficiaries; offers lump sum payments and total disability benefits which were not previously included.

Mr. Benke pointed out that those veterans who are now holding term insurance policies have many years in which to convert. Term insurance issued before January 1, 1946, may be continued without change for eight years from the date they were issued and policies issued after December 31, 1945, may be kept in force five years without the necessity of converting to one of the permanent types of insurance.

Another outstanding provision of the new bill permits former servicemen who never before held NSLI policies to take them out now, and it also permits veterans who are carrying policies of less than the maximum protection of $10,000 to increase them to that amount. Furthermore, the same liberal reinstatement provisions, for those who have allowed their policies to lapse, remain in effect until the time that their term insurance would normally expire.

Meanwhile, Mr. Benke said that passage of the new bill will undoubtedly increase the tremendous workload now facing the Veterans Administration, and he urges ex-servicemen to be patient if answers to their queries are delayed. Mr. Benke said there are now approximately 600,000 NSLI accounts in the Branch area of Minnesota, Iowa, Nebraska, and the Dakotas, and it is estimated that the figure will increase under the new regulations.

"The problem is intensified, because the changes have occurred in the midst of our decentralization program. Furthermore, many of our present work forms are now obsolete, and there will be an understandable time lag until new ones can be prepared," Mr. Benke said. "The Branch office at Fort Snelling will not be geared to fully handle the expected workload until our insurance files are sent here from New York, of this year. So, again, I urge veterans to be patient in any delays they may encounter."

As summarized by Mr. Benke, the principal provisions of the "Insurance Act of 1946" are:

1. Provides for three types of endowment policies; 20 year endowment, endowment at the age of 60 and endowment at the age of 65.

2. All restrictions on the choice of beneficiaries have been removed. Any person or persons, a corporation or the estate of the insured may be named.

3. In addition to the present method of payments, beneficiaries may now receive their money in a lump sum or in equal monthly installments ranging from 36 to 240 months.

4. Payment of benefits to an insured who is totally disabled for six months or more. They are in the amount of $5 a month for each $1,000 of insurance and are payable for as long as the disability exists. These payments do not effect the face value of the policy. The new total disability feature may be added to any form of NSLI, including term insurance. It is only necessary that the insured meet specified health requirements and pay the extra premium that is required for this additional benefit.

5. All persons not now in the armed services, but who served in the armed forces between October 8, 1940, and September 2, 1945, are entitled to apply for NSLI.

6. Applications for insurance which were rejected solely for health reasons between October 8, 1940, and September 2, 1945, are validated by these amendments in cases where the applicants were killed or totally disabled in line of duty while in service. This amendment will provide income for beneficiaries who receive no insurance payments under the old law.

Dr. Dallas Pratt has joined the staff of The National Mental Health Foundation, according to a recent statement by Leonard Edelstein, Executive Secretary.

As staff consultant, Dr. Pratt will review educational material prepared by the Foundation and will assist in interpreting its program of improving standards of care and treatment for the mentally ill, to the medical profession.

Prior to his association with the Foundation, Dr. Pratt was with the U. S. Army Medical Corps from 1942-1946, and by the time of his discharge earlier this year, had attained the rank of Major. During his army career, Dr. Pratt served as Clinical Director and Chief of open-ward section of the Neuropsychiatric Service at the Valley Forge General Hospital at Phoenixville, Pa.; and as Chief of the Neuropsychiatric Service of the 9th General Hospital on Okinawa.

Dr. Pratt received his training at Yale University and the College of Physicians and Surgeons. Later he served as member of the Psychiatric Division at Bellevue Hospital, New York. He is a member of the American Psychiatric Association, and of the Medical Advisory Board of the Kirkbride Fund for Research in Psychiatry.

TWENTY-FIFTH ANNIVERSARY OF THE DISCOVERY OF INSULIN

The twenty-fifth anniversary of the discovery of insulin will be observed with a program in Convocation Hall, at the University of Toronto, on September 16. Many internationally known figures in the field of medicine will be present to honor the occasion. Among them will be R. D. Lawrence, physician in charge, Diabetic Clinic, Kings College Hospital, London, England; H. C. Hagedorn, of Gentofte, Denmark; Bernardo A. Houssay, Research Institute of Experimental Biology and Medicine, Buenos Aires, Argentina; and Elliott P. Joslin, Harvard Medical School, Boston, U.S.A. This observation will be followed by the regular annual meeting of the American Diabetes Association.

On September 23, Eli Lilly and Company will sponsor an international diabetes clinic to be held at the Indiana University Medical Center in Herty Hall of the State Board of Health Building, Indianapolis, Indiana. International importance will be given to this meeting by the presence of Professor Charles H. Best, Toronto, Canada, co-discoverer with Banting of insulin, Professor Houssay, Dr. Lawrence and Dr. Hagedorn. They will discuss various phases of diabetic care.

ROCKWELL KENT MEDICAL DRAWINGS

A portfolio of reproductions of the unique illustrations recently completed by Rockwell Kent is being offered to interested physicians and pharmacists by Schering Corporation. The original drawings by the noted painter, Mr. Kent, were commissioned by Schering for use in promotion pieces. Each drawing portrays, in the artist's characteristic manner, the mental symptoms of a patient suffering from a specific endocrine deficiency.

Widespread response to the drawings, coupled with many requests for copies that might be framed, led to the issuance of this finely printed limited edition of the drawings, by Schering Corporation of Bloomfield, New Jersey, manufacturers of endocrine and pharmaceutical preparations for the medical profession. The full color reproductions in the portfolio are eleven by fifteen inches, mounted suitable for framing, and are devoid of any advertising.

Portfolios are available free on request.

HOSPITAL NEWS

Fourth of Births in State to Army Dads

Hospital births in Nebraska during 1945 numbered 21,098, 86.4% of the total of 24,292 births reported to the State Department of Health, the annual report of W. S. Petty, M.D., M.P.H., Director of Health, discloses. Infants born to fathers in the Armed Forces totaled 5,629, nearly one quarter of all births reported.

Of the total births, 12,329 were boys and 11,763 were girls; included were 249 pairs of twins and three sets of triplets. Physicians were in attendance at 24,260 of the births. Infant deaths numbered 697, or 28.7 per one thousand live births; still births totaled 455, or 18.6 per 1,000 live births. Thirty-seven maternal deaths were recorded.

While the total number of births in 1945 was slightly lower than in 1943 and 1944, the number of hospital births was the highest on record. The number of infant deaths also was the lowest.

Births in the principal cities of the state were reported as follows: Omaha, 5,432; Lincoln, 2,150; Hastings, 883; Grand Island, 827; Scottsbluff, 826; Norfolk, 656; Beatrice, 445; North Platte, 425; Fremont, 405.

OMAHA — Foundation walls are rapidly assuming shape on the site of the new Children's Memorial Hospital, on the west side of the University of Nebraska Hospital grounds. Contributions exceeding $525,000 have been made by residents of Nebraska and Iowa for construction and furnishing of the new 100-bed institution. Ground was broken on May 7th.

OMAHA—The Leo A. Daly Co. Omaha, and Ellerbe & Co., St. Paul, Minn., have been awarded the architect-engineer contract for designing of the $6,000,000 Veterans Administration Hospital, to be erected on twenty acres of ground south of the Douglas County Hospital, 42nd and Woolworth Ave., Omaha. The 500-bed general medical hospital will include, in addition to patient facilities, quarters for the nurses, staff and attendants.

GRAND ISLAND—The new Veterans Administration Hospital here will include 200 beds, and will cost $2,679,186. It will be a general medical facility.

LINCOLN — A mortgage burning ceremony, indicating retirement of all outstanding indebtedness of Bryan Memorial Hospital, featured the twentieth anniversary celebration of the institution, June 6th. Dr. E. C. McDade, Superintendent; Dr. H. C. Filley, President of the Board of Trustees, and Charles Roper, charman of the Buildings and Grounds Committee, officiated at the burning festivities which followed the signing of a check by Rev. McDade, covering the last payment on the mortgage.

For the first time in its history, the institution finds itself free of indebtedness which, in 1932-33 reached the staggering sum of $286,000, including the original mortgage of $250,000 and $36,000 of other obligations. Payments totaling two hundred thousand dollars since 1939, including $70,000 paid during the past year, have been made by Superintendent McDade. A twenty-page booklet, outlining the history of the institution and setting forth its future plans, was issued as a souvenir of the twentieth anniversary celebration.

Announced at the anniversary dinner were plans for a fifty-bed addition to the present structure, to be provided by two wings, 46x49 feet each, two stories high, increasing the capacity to 150 beds.

Needy persons will benefit from a bequest of $20,000 left to Lincoln General Hospital, in the will of the late Mrs. Caroline Rudge, which was probated recently. Funds left by Mrs. Rudge will be held in trust and administered by a board of three to defray the costs of hospitalization for worthy Lincolnites. Mrs. Rudge, Lincoln, civic leader and widow of Charles H. Rudge, also left $10,000 each to the YMCA and YWCA.

OAKLAND — Construction of a new 30-bed institution, for which $63,000 in cash already has been contributed by residents of the community, is planned by the Oakland Memorial Hospital, Inc., Oakland, Nebr., which has been awarded OPA approval for the project. When completed, the institution will be operated by the Lutheran Hospital and Homes Society, of Fargo, N. D., which already conducts hospitals in Columbus, Grand Island and North Platte.

Plans for the one-story and basement structure are being prepared by John Latenser & Sons, Architects, Omaha. The building will be 121x41 feet in size, with a 68x41-foot "L" shape unit at one end, and is expected to be one of the finest one-story plan hospitals in the middle west. It will be located on a sloping piece of ground in the residential section of Oakland, replacing a small existing hospital which is now involved in an estate and is to be closed within the near future.

BLUE CROSS enrollment of the Associated Hospital Service of Nebraska had exceeded the 70,000 mark on July 1, 1946, while its companion plan, the Nebraska Medical Service, had attained a membership of more than 13,000 enrollees at the end of the first half of the year, J. H. Pfeiffer, Executive Director of the two organizations, reports.

Membership in the Blue Cross Plan on July 1st was 70,467, representing 1,491 groups of employed persons and their dependents. Payments to hospitals for the half year totaled $155,583.77 for the care of 3,339 members, sending to $378,895.89 the grand total expended for hospitalization of Plan participants since February 1, 1939, when the Association began functioning as an Omaha Hospital Council sponsored project. Now statewide, the Blue Cross has 62 hospitals enrolled as member institutions, and it holds reciprocity agreements with a number of other Blue Cross plans for the mutual benefit of Blue Cross members throughout the country.

Approval has been given by the Nebraska State Insurance Department for a nominal increase in premium rates, which soon will be placed into effect, and for several additional benefits not presently included in subscriber contracts.

NEBRASKA SURGICAL PLAN members at a meeting on July 2nd, approved an amendment to change the name of the organization to **"Nebraska Medical Service,"** in keeping with the recent inclusion of medical care benefits for hospital in-patient service. The in-hospital medical care provision, which has been embodied in the new membership agreement now being issued by the Nebraska Medical Service, provides the subscriber and each enrolled dependent up to 21 days medical care in any one year, while confined in a hospital. An indemnity payment amounting to $3 per day will be paid after the third hospital day, and up to 21 days in each contract year. In addition, diagnostic x-ray services up to $20 maximum annual benefit; radiation therapy up to $100 maximum benefit; also, electrocardiograph and basal metabolism tests will be provided as set forth in the indemnity schedule. Indemnities will not be provided, however, for venereal diseases, mental and nervous disorders, drug or alcohol addiction, rest cures, observation cases, or routine physical check-ups.

MEDICAL SERVICE had a membership of 13,512 participants on July 1st, and it is anticipated that availability of medical care in addition to surgical benefits will greatly stimulate enrollment in the infant organization, which began operation November 1, 1944. A booklet explaining contract benefits and payment schedules, entitled "Schedule of Benefits and Instructions," will be distributed to all members of the medical profession in Nebraska who are co-operating with the plan.

NEBRASKA MEDICAL SERVICE
CASH RECEIPTS AND DISBURSEMENTS
July 31, 1946

Cash on hand July 1, 1946		$41,148.38
Receipts:		
From dues	$ 7,902.88	
From enrollment fees	319.00	
Taxes deducted from salaries	4.30	8,226.18
		$49.374.56
Disbursements:		
Administrative expense	$ 1,577.20	
Claims paid	6,199.00	
Salary, Executive Director	150.00	
Bonds purchased	5,000.00	
Secretary's fee	25.00	

Advertising	157.45	
Printing and stationery	548.68	
Attorney	50.00	
Refunds	83.50	
Exchange	.50	
Home office travel and expense	-------	
Collection expense	1.33	
Taxes paid	17.40	
Filing fees	11.50	
Dues and subscriptions	3.75	
Medical adviser	50.00	13,875.31
Cash on hand, July 31, 1946		$35,499.25
Bank Balance, July 31, 1946		$35,499.25

NEBRASKA MEDICAL SERVICE
BALANCE SHEET

July 31, 1946

Assets:			
Cash in bank		$35,499.25	
Premiums in process of collection		1,964.92	
U. S. Bonds (cost plus accrued interest)		15,035.55	
Prepaid insurance premiums		22.92	52,522.64
Liabilities:			
Accounts payable, Blue Cross		$ 1,681.60	
Accounts payable, monthly invoices		432.87	
Accrued payroll taxes		5.80	
Claims payable		1,100.00	
Accrued audit expense		175.00	
Unearned premiums		16,176.93	
		$19,572.20	
Subscribers 4% Surplus Notes	$19,450.00		
Net income to date	13,500.44		
		$32,950.44	
			$52,522.64

NEBRASKA MEDICAL SERVICE
INCOME AND EXPENSES

July 31, 1946

	July 1946	7 Months to Date
Income:		
From dues	$ 8,408.00	$43,047.25
From enrollment fees	319.00	3,304.00
	$ 8,727.00	$46,351.25
Expenses:		
Claims	$ 5,299.00	$23,121.00
Salary, Executive Director	150.00	1,050.00
Legal	50.00	320.00
Auditing	25.00	175.00
Advertising	23.73	833.60
Printing	395.33	1,796.64
Stationery	8.95	48.33
Insurance	20.00	140.00
Administrative expense	1,681.60	8,609.45
Home office travel and expense	-------	296.00
Professional fees	25.00	175.00
Collection expense	1.33	12.82
Taxes and licenses	1.50	40.50
Miscellaneous	20.00	31.55
Postage	-------	132.84
Dues	3.75	49.25
Medical Adviser	50.00	290.00
	$ 7,755.19	$37,121.98
Net Gain	$ 971.81	$ 9,229.27

MEMBERSHIP SUMMARY—JULY, 1946

	Subscribers	Dependents	Total
1. Membership, July 1, 1946	5,877	7,635	13,512
Additions	398	468	866
Cancellations	107	88	195
Membership, August 1, 1946	6,168	8,015	14,183
2. Number of groups now enrolled			419
3. Number of groups added during July			25

4. Members enrolled by salesmen:

M. W. Ashton (outstate)	75
W. V. Jones (Omaha)	56
B. R. Lohnes (Omaha)	32
G. S. Malone (outstate)	78
C. H. Smith (Omaha)	92
Office	65
	398

JULY ENROLLMENT BY COMMUNITIES

OMAHA—10 groups, 207 members: Boys Town—Home; Boys Town—Downtown Office; Hopper Rest Home; Jelco Omaha Company; Lycan and Rankin Sheet Metal Co.; Mi Cleaners; Rushing Implement Company; Sarpy County Farm Bureau; Schmader Cabinet Works; Sensation Mower, Inc.

FALLS CITY—1 group, 8 members: Jenne's Ready-to-Wear.

FREMONT—1 group, 7 members: Arlington State Bank.

HASTINGS—1 group, 24 members: R. W. Kerr Plastic Company.

HENRY—1 group, 9 members: Henry City Group.

ALLIANCE—2 members.

BEATRICE—1 member.

LINCOLN—5 groups, 67 members: Attorney General's Office; Raymond Bauer Drug Company; Olney Clinic: Santa Fe Trails; Tillman Grill.

SUPERIOR—2 groups, 14 members: Brodstone Memorial Hospital: Edella Beauty Shop.

HOLDREGE—1 group, 10 members: Holdrege Hospital.

ORD—1 group, 7 members: Quiz Industries.

OXFORD—1 group, 8 members: Oxford Health Club.

SCOTTSBLUFF—1 group, 20 members: Rosenberger Sales and Service.

CAMBRIDGE—3 members.

NORTH PLATTE—7 members.

YORK—4 members.

NEBRASKA MEDICAL SERVICE
CLAIM REPORT

July, 1946

Number of claims paid	137
Number of services rendered	153
Females	79
Males	60

Type of Service	Number	Amt. Paid
Anesthesia	2	$ 10.00
Appendectomies	12	1,200.00
Eye	3	200.00
Gall Bladders	2	250.00
General Surgery	19	825.00
Gynecology	13	1,000.00
Hemorrhoids	3	145.00
Herniotomies	--	-------
Minor Surgery	24	150.00
Nose and Throat	1	50.00
Obstetrics	3	150.00
Orthopedics	--	-------
Pathology	--	-------
Radiation Therapy	--	-------
Tonsillectomies	51	1,770.00
Transfusions	1	10.00
Urology	5	310.00
X-rays	14	98.00
	153	$ 6,168.00

Amount of claims in process of settlement—$1.100.00

NATIONAL FOUNDATION FOR INFANTILE PARALYSIS, INC.

440 Stuart Bldg., Lincoln 8, Nebraska

CLINTON BELKNAP, Nebraska Representative

As of this date (Aug. 14, 1946), the following hospitals in Nebraska and in the immediate surrounding areas are prepared to accept acute polio patients for modern care and treatment. Physicians are urged to call the hospital prior to sending the patient in order to assure accommodations.

NEBRASKA:

In Lincoln the Orthopedic Hospital will accept unmarried polio patients who have not yet reached their 21st birthday.

In Omaha both the St. Joseph Hospital and the Douglas County Hospital are accepting children or adults.

IOWA:

In Sioux City the St. Joseph Hospital and the St. Vincents Hospital are accepting children or adults.

SOUTH DAKOTA:

In Hot Springs the Lutheran Hospital is accepting children or adults.

COLORADO:

In Denver the Colorado General Hospital (State) and the Denver General Hospital (City) are accepting children or adults.

The Denver Children's Hospital normally accepting children to 16 years of age, is reported to be temporarily filled to capacity.

The following are emergency services for which the funds of the local county chapters of the National Foundation for Infantile Paralysis may be expended:

Ambulance service; hospital care; nursing service; doctor's care, including consultation services if desired by the patient's physician; long distance telephone calls by the physician in arranging hospitalization—in short, anything pertaining to the provision of medical care for the polio patient.

Whenever the payment for any of the above medical services will in any way tend to work a financial hardship upon the individual or family involved, the local county chapter of the National Foundation may pay the bill. Families are not expected to mortgage their belongings before being eligible for help, nor are they expected to borrow money, sell the family automobile, or use the funds which may have been put aside to send a child to school.

The office of the Nebraska State Representative for the National Foundation for Infantile Paralysis, Mr. Clinton Belknap, is located at 440 Stuart Building, Lincoln, Nebraska. His office telephone number is 2-4827; his home telephone number is 3-6330. He stands ready at all times to be of any service possible to the medical profession.

The local Chairmen and Secretaries of the county chapters of the National Foundation throughout Nebraska are currently as follows:

THE NATIONAL FOUNDATION FOR INFANTILE PARALYSIS, INC.

NEBRASKA COUNTY CHAIRMEN AND SECRETARIES

Adams—Leonard T. Waterman, Hastings; Mrs. Grace Simpson, Hastings.
Antelope—Dr. D. S. Hinman, Elgin; Mrs. A. A. Pagel, Neligh.
Arthur—August Rasmussen, Lemoyne; Carl Crouse, Arthur.
Banner—Kathryn K. Lee, Harrisburg; Rose Shafto, Harrisburg.
Blaine—Mrs. Lloyd Bowen, Dunning; Mrs. Albert Arms, Dunning.
Boone—Ray P. Medlin, Albion; Father Albert Sudbeck, Petersburg.
Box Butte—Richard Ale, Alliance; Howard Lichty, Alliance.
Boyd—Mrs. John Adams, Spencer; Mrs. John Barta, Spencer.
Brown—Harold O. Woods, Ainsworth; Mrs. Ruth Miles, Ainsworth.
Buffalo—Verne Freeman, Kearney; Mrs. Goldie Stark, Kearney.
Burt—G. F. Bryant, Tekamah; Mrs. Gretchen Holland, Tekamah.
Butler—Paul Kosch, David City; E. H. Rech, David City.
Cass—Mrs. Lawrence Group, Louisville; Miss Wilhelmina Henrichsen, Plattsmouth.
Cedar—E. W. Rossiter, Hartington; Fred Zimmer, Hartington.
Chase—Glenn Case, Imperial; Mrs. Frank Reichart, Imperial.
Cherry—Harold D. Jordan, Valentine; Mrs. Queen Dowden, Valentine.
Cheyenne—P. J. Heaton, Sidney; John W. Martinosky, Sidney.
Clay—Mrs. Jake M. Weber, Sutton; Miss Leola Richert, Clay Center.
Colfax—W. J. Wragge, Schuyler; Mrs. C. J. Zemanek, Schuyler.
Cuming—Mrs. Guy L. Thompson, West Point; Mrs. Ferne Box, West Point.
Custer—Mrs. Maybell Carothers, Broken Bow; Mrs. Paul Brown, Broken Bow.
Dakota—Mrs. Ed Metz, South Sioux City; Mrs. Fred B. Shaw, South Sioux City.
Dawes—Dr. M. B. McDowell, Chadron; Walter Hampton, Chadron.
Dawson—Emil Barta, Cozad; Mrs. Grace Barmore, Lexington.
Deuel—Lloyd Zimmer, Chappel; Mrs. Emil Jacobson, Chappell.
Dixon—Frank Kroger, Newcastle; Mrs. Myrtle Day, Ponca.
Dodge—George Bates, Fremont; Mrs. Gene Kemper, Fremont.
Douglas—Walter F. Cozad, Omaha; Miss Leeta Holdrege, Omaha.
Dundy—Leon Hines, Benkelman; Mrs. Nora Herring, Benkelman.
Fillmore—T. J. Keenan, Geneva; Miss Artice E. Miles, Geneva.
Franklin—C. A. Pool, Franklin; P. L. Slocum, Franklin.
Frontier—Arvel Beery, Curtis; Mrs. A. L. Hathaway, Eustis.
Furnas—Guy T. Haines, Arapahoe; Fred K. Evans, Arapahoe.
Gage—Dr. John G. Krim, Beatrice; M. E. Dole, Beatrice.
Garden—I. W. Wright, Oshkosh; Mrs. Louise Keating, Oshkosh.
Garfield—J. J. Meyers, Burwell; Mrs. Clifford Anderson, Burwell.
Gosper—Mrs. J. M. Reynolds, Elwood; Doris Bigelow, Elwood.
Grant—Mrs. George Manning, Hyannis; Mrs. Russell Booth, Whitman.
Greeley—Dr. J. L. Brannen, Greeley; M. G. Williams, Scotia.
Hall—Ernest T. Lindgren, Grand Island; Mrs. M. L. Lewis, Grand Island.
Hamilton—Mrs. Carl Gjerloff, Marquette; Mrs. Roy Wade, Aurora.
Harlan—L. B. Carraher, Stamford; R. E. Weare, Stamford.
Hayes—Mrs. H. B. McKibbon, Hayes Center; also Secretary.
Hitchcock—Mrs. Alton Jeffus, Stratton; C. C. Turner, Stratton.
Holt—Mrs. Dewey Schaffer, O'Neill; James W. Rooney, O'Neill.
Hooker—John J. Motl, Mullen; Vera Mae Matthews, Mullen.
Howard—Mrs. A. H. LeGate, St. Paul; Mrs. Velma Taylor, St. Paul.
Jefferson—R. B. McDonald, Fairbury; E. L. Dickens, Fairbury.
Johnson—Mrs. Raymond Morrissey, Tecumseh; Mrs. Marion L. Weber, Tecumseh.
Kearney—Emil Nelson, Minden; Richard Armstrong, Minden.
Keith—George Anderson, Ogallala; Russel Hughes, Ogallala.
Keya Paha—George Childs (Vice Chairman), Springview; Mrs. George Hallock, Springview.
Kimball—Mrs. Lucille Van Steenberg, Kimball; Mrs. Ella Leininger, Kimball.
Knox—Dr. W. E. Wright, Creighton; Frank Hughes, Bloomfield.
Lancaster—Mrs. Arthur L. Smith, Lincoln; Col. A. T. Lobdell, Lincoln.
Lincoln—Leah Baskins, North Platte; Mrs. Elmer Byrne, North Platte.
Loup—Mrs. Florence Satterfield (Vice Chairman), Taylor; Secretary to be elected.
Logan—Clarence W. Beam, Stapleton; Virgil C. Magnuson, Stapleton.
Madison—Dave Powell, Norfolk; Miss Amy Wolt, Norfolk.
Merrick—Mrs. Sten Nordstedt, Central City; Mrs. Clara Wilder Everette, Central City.
McPherson—R. C. Conroy, Tryon; Mrs. Harriet Hogue, Tryon.
Morrill—Thomas Kidd, Bayard; C. E. Young, Bayard.
Nance—Mrs. W. F. Downing, Fullerton; Miss Jessie G. Kreidler, Fullerton.
Nemaha—Mrs. Cecil Williams, Auburn; Mrs. Earl Deck, R.N., Peru.
Nuckolls—Claude E. Shaw, Superior; Wayne Megrue, Superior.
Otoe—John C. Miller, Nebraska City; Arthur Sweet, Nebraska City.
Pawnee—Ben R. Henry, Pawnee City; Mrs. E. Vance Eckman, Pawnee City.
Perkins—Mrs. C. M. Mead, Grant; Mrs. Gladys Fitzgerald, Grant.
Phelps—Bernard A. Winquist, Holdrege; Mrs. G. A. Wiley, Holdrege.
Pierce—Mrs. Leslie Brand, Foster; (Secretary to be elected).
Platte—Dr. W. R. Neumarker, Columbus; Robert A. Quick, Columbus.
Polk—Leo V. Carlson, Stromsburg; Harlan Fusby, Stromsburg.
Red Willow—John Bogard, McCook; Mrs. Martha Green, McCook.
Richardson—Don W. Thomas, Falls City; Berlyn Shields, Falls City.
Rock—Mrs. Talma Allen, R.N., Bassett; Mrs. H. Buell, Bassett.
Saline—Mrs. Amanda Jewett, Friend; Mrs. P. J. Mullin, Friend.
Sarpy—Alice Weeth, Gretna; Mrs. C. R. Caley, Springfield.
Saunders—Howard V. Kanouff, Wahoo; J. F. Callaway, Wahoo.
Scotts Bluff—Leonard B. Harrison, Scottsbluff; Everett Boggs, Gering.
Seward—Mrs. A. E. Curley, Seward; Ivan Blevens, Seward.
Sheridan—Mrs. Anne Graeber, Rushville; Mrs. Janet Curtiss, Rushville.
Sherman—Stanley F. Roy, Loup City; Miss Ann Van, Loup City.
Sioux—Mrs. Edgiththa Rathbun, Harrison; Clara Unitt, Harrison.
Stanton—Judge S. F. Armbruster, Stanton; Mrs. Gerhard Eckert, Stanton.
Thayer—A. J. Nacke, Hebron; Harvey Hess, Hebron.
Thomas—Mrs. Pauline Hanks, Thedford; Mr. Pearl Nutter, Thedford.
Thurston—Mrs. John McCluhan (Vice Chairman), Winnebago; Mrs. Wendell Boughn, Walthill.
Valley—George Satterfield, Ord; Mrs. Edw. L. Kokes, Ord.
Wayne—Henry Ley, Wayne; P. L. March, Wayne.
Washington—Ralph E. Fairchild, Blair; Dorena Walker, R.N., Blair.
Webster—Mrs. George Corner, Blue Hill; Mrs. O. H. Martin, Blue Hill.
Wheeler—S. L. Wescott, Erickson; L. E. Harris, Erickson.
York—Mrs. Wayne Harrington, Fairmont; Mrs. Carl Rose, York.

COUNCIL ON MEDICAL SERVICE—AMA

ACTION ON TEN POINT PROGRAM

Display of the A.M.A.'s Ten Point Program high lighted activities at the San Francisco session. Spread 40 by 25 feet across one wall, it impressed many as being the Magna Charta of American medicine. Impressive as the Ten Point Program may be in print, it will be only as effective as the state and local medical societies make it. States are urged to concentrate efforts on this program immediately. Facsimilies of the program soon will be available for display at state meetings.

CHANGES IN ORGANIZATION

Changes in the organization of the A.M.A. in accord with the recommendations of the Rich Public Relations Report have been approved by the House of Delegates.

The Bureau of Medical Economics is to be expanded with a leading economist employed to develop factual material in the field for use in The Journal and Hygeia.

The General Manager is to have an executive assistant—an expert in the field of public relations—to interpret the activities of the various councils and bureaus to the public and medical profession.

The name of the Council on Medical Service and Public Relations was changed to the Council on Medical Service.

PLENTY TO DO

Although the title of the Council is shortened its field of operation and duties have been enlarged. The Division of Prepayment Plans has definitely been placed under it; putting the Ten Point Program into actual practice is one of its major concerns. It will intensify its work in the field of professional relations extending the scope of the regional conferences and the News Letters. The House of Delegates instructed it to develop the Health Council idea and okeyed its recommendation for the creation of a Speakers' Bureau. The Washington office of the Council remains intact.

TWO IMPORTANT RESOLUTIONS

In addition to these tasks the Council has been charged with the consideration of the medical care and economic aspects arising from the creation of a health and welfare fund under union control in the soft coal industry. This has extensive ramifications in the whole industrial field. Resolutions pertaining to this subject, introduced by delegates from Kentucky and Michigan at San Francisco, were referred to the Council and arrangements already have been made for a series of meetings this summer to work out ways and means of attacking the problem. The Council on Industrial Health is equally concerned and will work in conjunction with the Council on Medical Service in an endeavor to obtain a solution.

TWO IMPORTANT CONFERENCES

Two conferences where speakers "let their hair down" and "called 'em as they see 'em," were held under the direction of the Council during the San Francisco session. The Regional West Coast Conference held just before the annual session completed the first swing around the circuit by the Council. Forty representatives from fourteen states attended and took part in the discussion that ranged all the way from consideration on technical prepayment plan questions to a keen incisive picture of the over-all national situation as it applied to American medicine. The latter was given by Dr. Frank Lahey, Chairman of the Directing Board of the Procurement and Assignment Service during the War.

Twenty-five states were represented at the Wednesday afternoon round table on Public Relations held at the St. Francis Hotel. Prepayment again was the "hot subject." However, Dr. Harrison Shoulders, A.M.A. president, and several members of the Board of Trustees discussed the subject of professional relations. Each indicated that personal contact by Council members with state medical societies was the best way to iron out many problems. Several speakers stressed the value of visits by Council representatives to states to aid in getting plans established.

For full details on the House of Delegates meetings in San Francisco see July issues of The Journal.

COUNCIL CARRIES ON

Both E. J. McCormick, M.D., and Thomas A. McGoldrick, M.D., were unanimously selected by the House of Delegates to succeed themselves as members of the Council. The Council will carry on under the chairmanship of Doctor McCormick. With increased office facilities and personnel it is in better position than ever to aid state and local societies.

SPEAKERS AND EXHIBITS ON PHYSICAL MEDICINE

The Council on Physical Medicine for the past twenty-one years has been studying the physical therapeutic methods and the apparatus used in diagnosis and treatment. The Council has assembled a list of speakers on physical medicine who are located in various parts of the country. The names of these speakers are available to program chairmen of local and state medical societies.

The Council on Physical Medicine, cooperating with the Bureau of Exhibits, has displays prepared which may be forwarded to the state and local societies for use at their annual sessions. These exhibits consist of:

1. Plans and specifications for departments of physical medicine in hospitals of fifty or more beds.
2. Amputations.
3. Audiometers and hearing aids (physics and function of the instruments).
4. Posture.
5. Mechanical nostrums.

By writing to the secretary of the Council on Physical Medicine, Mr. Howard Carter, additional information may be obtained.

WAGNER-MURRAY-DINGELL BILL

"Washington, July 9—Efforts to obtain enactment of the National Health Bill at this session of Congress have been abandoned by the Senate Committee on Education and Labor.

"Hearings which began last spring may be continued for another day or so, but then will be brought to a formal close, it was learned today. Witnesses scheduled for testimony later have had their appearance canceled.

"It was promised, however, that the Wagner-Murray-Dingell bill, carrying the program for health insurance, nationalizing and liberalizing existing Social Security services and facilities and extending coverage to some 15,000,000 persons now excluded, would be introduced at the next Congress when it convenes in January."—The New York Times. (Indications are that hearings on Wagner-Murray-Dingell bill may be resumed after recess).

PEPPER BILL

The Education and Labor Committee voted to instruct Senators Pepper and Taft to draw up a resolution embodying the recommendations of the Committee relative to child health. These recommendations would express the sense of the Committee that a total of $31,500,000 for the promotion of the health of mothers and children, for the care of crippled children, for child welfare services, and for administration expenses should be provided.

A GOOD JOB

One of the outstanding medical society programs of lay-education this year was the "Centennial Hall of Health" sponsored by the Milwaukee County Medical Society and Woman's Auxiliary. The whole program was in celebration of the 100th Aniversary of the Society. It lasted a week and consisted of some seventy scientific exhibits, a series of lectures, radio broadcasts from the exhibit halls, and all of the fan-fare of the "big-time." Over thirty thousand attended, of which ten thousand were school children. For details, write to Mr. James Kelly, executive secretary, Milwaukee County Medical Society.

THE NATIONAL CHAMBER OF COMMERCE AND THE WAGNER-MURRAY-DINGELL BILL

"The attitude of business on compulsory health insurance was expressed by a National Chamber representative June 20 before the Senate Committee on Education and Labor.

"Andrew T. Court, of the Labor Economics Section, General Motors Corporation, speaking for the Chamber, questioned the practicability of the Wagner-Murray-Dingell Bill, upon which hearings are being held. He pointed out that even if the medical profession cooperated wholeheartedly in the program proposed there would not be enough members of the profession to give the added medical care which might be demanded by the public as a right.

"Further study of voluntary plans was proposed by Mr. Court, who called attention to the progress already made through voluntary action."

PREPAYMENT PLAN EXHIBIT

Tucked away in a far corner of the Scientific Exhibit Hall the Council's exhibit on Prepayment Plans and the display of the Bureau of Information on Rural Medical Service drew only the more sturdy or those who got lost in the vast maize of aisles. In spite of the location more than five hundred persons stopped to view the charts and pick up literature, including the new brochure on "Voluntary Prepayment Medical Care Plans." In view of the many requests for copies of the charts and maps exhibited, the Council is having prints made. Copies will be available on request.

MEDICINE'S NATIONAL HEALTH PROGRAM

1. Minimum standards of nutrition, housing, clothing and recreation are fundamental to good health.

2. Preventive medical services should be available to all and should be rendered through professionally competent health departments. Medical care to those unable to provide for themselves should be administered by local and private agencies with the aid of public funds when needed, preferably by a physician of the patient's choice.

3. Adequate prenatal and maternity care should be made available to all mothers. Public funds when needed should be administered by local and private agencies.

4. Every child should have proper attention, including scientific nutrition, immunization and other services included in infant welfare. Such services are best supplied by personal contact between the mother and the individual physician but may be provided through child health centers administered locally with support by tax funds whenever the need can be shown.

5. Health and diagnostic centers and hospitals necessary to community needs are preferably supplied by local agencies. When such facilities are unavailable, aid may be provided by federal funds under a plan similar to the provisions of the Hill-Burton bill.

6. Voluntary health insurance for hospitalization and medical care is approved, the principles of such insurance plans to be acceptable to the Council on Medical Service and to authoritative bodies of state medical associations.

7. Medical care, including hospitalization, to all veterans should be provided preferably by a physician of the veteran's choice, with payment through a plan agreed on between the state medical association and the Veterans' Administration.

8. Research for the advancement of medical science, including a National Science Foundation, is endorsed.

9. Services rendered by volunteer philanthropic health agencies should be encouraged.

10. Widespread education in the field of health, and the widest possible dissemination of information regarding the prevention of disease and its treatment, are necessary functions of all departments of public health, medical associations and school authorities.

FROM OFFICE OF THE SURGEON GENERAL U. S. ARMY

EMOTIONAL ATTITUDE GREATEST BARRIER TO RECOVERY FROM APHASIA, SGO REPORTS

Among the war's victims are men who can write but not read, read but not comprehend spoken language, read with the eyes but not read aloud.

There are many other weird combinations of disabilities. The general condition is known as aphasia. It is due, in most cases, to injury of some specific area of the brain, associated with the particular activity in which the victim has lost his ability to function.

The brain generally is a quite adaptive organ. When one area is injured nearby brain tissue often is able gradually to take over its functions. Hence, aphasias are seldom permanent if treated promptly, but while they last the patients often are in a pitiable condition with little real hope, despite assurances, that they ever will recover.

Various means of speeding the brain readjustment are being tested in Army hospitals by medical and psychological officers. Often the greatest barrier to quick recovery is the emotional attitude of the victim according to one report just made to Major General Norman T. Kirk, The Surgeon General of the Army by Captains Louis Lin and Martin H. Stein. They found that considerable improvement could be brought about very rapidly, in selected cases, by doses of the relaxation drug, sodium amytal along with correlated psychotherapeutic techniques. Apparently it gives the injured soldier a respite from worry, which is all the brain needs to cure itself.

They cite some dramatic cases. One young soldier had been wounded by a shell fragment on the left side of the brain. The result was partial paralysis on the right side of the body. He understood speech fairly well, although he made occasional errors. He comprehended written material, but was unable to read it aloud. He could obey simple commands and could distinguish right from left.

Reexamination after a single dose of sodium amytal revealed an increase in vocabulary, in complexity of sentence structure, and in quality of words. His mispronunciations were fewer.

Another man, also with a gunshot injury to the left side of the brain, understood spoken and written speech readily but was unable to speak except in simple phrases. He was able to name many common objects, but had great difficulty with slightly more complex ones. After one dose of sodium amytal he was able to express himself in complete sentences and name many of the less familiar objects which he had been unable to name before. He said that he had regained in a few minutes all he had lost during the painful process of evacuation.

Another soldier with a compound, depressed fracture of the skull could understand some written language but was unable to read it aloud. He talked only in brief phrases or single words, and became almost mute after a few moments of questioning. After administration of sodium amytal he was able to speak spontaneously and volubly in fairly well constructed sentences. He had some success in pronouncing written words.

The two officers predict that a large group of physically well-preserved young men will require just such help in the next few years.

Apparently all that is accomplished by the sodium amytal—several similar drugs probably would have as good an effect—is to let down temporarily the emotional barriers and give a patient more confidence in himself. However dramatic the results, the drug per se does not help restore the brain functioning. This often requires long and patient retraining, on which a recent conference was held at the Office of the Surgeon General. It is practically necessary to use the methods of the kindergarten, or even those by which infants are taught to talk, with intelligent, well-educated adults. Some of these methods, with essential variations, were discussed at the conference.

Frequently are encountered cases so severe as to be unable to produce even the sounds required in the production of words. In such cases the actual sounds must be taught by having the patient imitate lip and tongue movements which can be demonstrated to him visually. Remembered rhymes and songs—even on the nursery jingle level—may be used to evoke other words and phrases not at the patient's command.

As the patient masters a few sounds he is taught simple words containing only these sounds and he is encouraged as soon as possible to combine these words into sentences.

On the whole the prognosis for aphasia victims is good with the training system which the Army psychologists are evolving from experience with their patients.

NEW AND NON-OFFICIAL REMEDIES

New and Non-official Remedies, 1946, containing descriptions of the articles which stand accepted by the Council on Pharmacy and Chemistry of the American Medical Association on January 1, 1946. Cloth. Price, postpaid, $1.50. Pp. 770. Chicago: American Medical Association, 1946.

New and Nonofficial Remedies is the book in which are listed and described the medicinal preparations which the Council on Pharmacy and Chemistry has found acceptable, under its rules, for the use of physicians. To have a product accepted, the manufacturer must declare its composition, give adequate proof of its therapeutic value and market it with claims which have been found valid by the Council. The present volume represents a cumulative epitome of the Council's work since its foundation in 1905

Accepted preparations are grouped in twenty-four classifications ranging from Allergenic Preparations to Vitamins. Ordinarily, an inclusive general article precedes the description of the various products. The monograph for the products set forth the actions, uses and dosage and usually a set of tests and standards. As its name implies, the book is intended to describe nonofficial preparations, that is preparations which are not included in such official publications as the Pharmacopeia and the National Formulary. However, some official articles are listed and described, these being in general those for which the Council feels the practicing physician needs concise and authoritative information. In the preface of the present volume, the Council lists some thirty-five official drugs ranging from acetylsalicylic acid to Strophanthin, which the Council feels it no longer necessary to consider for inclusion in the book. However, in most cases, a brief monograph on actions, uses and dosage gives information useful to the physician and for the control and advertising of marketed preparations.

Examination of the volume reveals that there have been no extensive or radical revisions of the general articles representing the twenty-four chapter heads under which preparations are classified. A few revisions of separate monographs may be mentioned: under Chaulmoogra Derivatives, the recommended use of Chaulmoogra Oil is limited to sarcoidosis; the dosage statement for Quinacrine Hydrochloride has been notably expanded to reflect the war-time experience with the drug. The radically revised monograph on Amphetamine is in harmony with the recent Council report on the use of this drug. Minor revisions of the chapter on Contraceptives are noted, and one marks the appearance of many additional products. The monograph on the Vitamin B Complex now mentions synthetic folic acid, recently made available for investigational use; but no accepted preparations are listed.

There appear to be no spectacularly new accepted preparations. Perhaps the most noteworthy is the casein hydrolysate, Amigen, acceptance of which will no doubt be followed by that of many more preparations representing the field of amino acid therapy.

HUMAN INTEREST TALES

Communications bearing human appeal are solicited. They should be addressed to The Editor, Nebraska State Medical Journal, Mezzanine No. 3, Medical Arts Building, Omaha.

Dr. Claude Otto of Aurora, recently released from the Army, has located in Frankfort, Ill.

Dr. Stuart P. Wiley recently discharged from the Navy has become associated with Dr. W. E. Shike in Gering.

Dr. James D. Bradley, formerly of Pender, has located in Omaha and is limiting his practice to surgery.

Dr. R. J. Morgan, recently separated from military service, has returned to the Copsey Clinic in Alliance.

Dr. Leo C. Heinrich, formerly of Omaha, following discharge from military service, has located in Beresford, S. D.

Dr. B. H. Grimm of Sidney following an injury while horseback riding in Estes Park last July, has returned to his practice.

Dr. Merton Ekwall, a recent graduate of the University of Nebraska Medical College, has joined the staff of the Norfolk State Hospital.

Dr. Bradley Woodruff, recently discharged from the medical corps of the Navy, has become associated with his father in Grand Island.

Dr. A. W. Anderson was separated from the U. S. Naval medical corps as lieutenant commander, and has returned to his former location in Lexington.

Dr. Nichols Bailey, a graduate of the University of Nebraska Medical College in 1941, following release from the Army, has joined the staff of the Ainsworth Hospital.

George Q. Kennaugh has moved from Exeter to the West Coast. He will be succeeded by Dr. H. H. Brust, a native of Billings, Montana, and a graduate of Creighton Medical School.

Dr. Herbert Davis of Omaha, and Mr. M. C. Smith, our Executive Secretary, were guest speakers at the Annual Sessions of the Wyoming State Medical Society at Cheyenne, in July.

Dr. P. T. Conlan, a graduate of Creighton Medical School, and for several years instructor in Anatomy, died recently in Los Angeles at the age of 75. Dr. Conlan had resided in Omaha until 1932 when he moved to California.

Dr. Thomas T. Smith, a former lieutenant commander in the Naval medical corps, was recently appointed as branch section chief of otorhinolaryngology of the Veterans Administration. He will serve District No. 8. Dr. Smith is a graduate of Creighton University Medical School, 1933.

BUY
U.S. SAVINGS BONDS

ROSTER OF NEBRASKA PHYSICIANS IN MILITARY SERVICE

As of August 15, 1946

ADAMS COUNTY
Shaw, W. L., Hastings
Uridil, C. F., Hastings

BOONE COUNTY
Higgins, J. P., Albion

BOX BUTTE COUNTY
Morgan, R. J., Alliance

BUFFALO COUNTY
Albertson, L. C., Kearney
Dickinson, L. E., Ravenna
Hayes, C. B., Kearney
Wilcox, M. B., Kearney

BUTLER COUNTY
Ragan, L. E., David City

CUMING COUNTY
Krause, Richard A., West Point
Robbins, H. M., West Point
Thompson, L. L., West Point

CUSTER COUNTY
Leonard, Patrick, Broken Bow
Pester, Geo., Broken Bow
Raasch, Richard, Broken Bow

DAWES COUNTY
McElligott, E. W., Chadron

DODGE COUNTY
Byers, R. C., Jr., Fremont

DOUGLAS COUNTY
OMAHA
Avery, Hiram Henry
Barber, Herbert Gordon
Bowers, Warren F.
Carp, Oscar, Int.
Crawford, Wm. Henry
Curti, Ralph Elmer
Dolce, Daniel D., Int.
Dornberger, G. R.
Everitt, Neill J.
Fogarty, Chas. James
Gross, Jos. J.
Green, Chas. Joseph
Harms, H. H., Int.
Hartford, Thos. J.
Hennegan, Geo. F.
Hoekstra, Clarence, S., Int.
Kemp, Wm. T.
Koutsky, Jas. John, Int.
Krieg, Jacob J., Int.
Lierman, C. E., Int.
Mooater, Chas. J., Int.
Patton, John Erwin
Peterson, Wendell Case
Reiner, Walter M., Int.
Senter, Vance E., Int.
Strand, Clarence Johnson
Wendland, John P.

FILLMORE COUNTY
Tucker, John G., Milligan

FRANKLIN COUNTY
Williams, Martin P., Franklin

GAGE COUNTY
Rush, Weaver A., Beatrice
Smartwood, F. M., Adams

HALL COUNTY
Campbell, John F., Grand Island
Johnson, E. George, Grand Island

HITCHCOCK COUNTY
Brown, Kenneth W., Stratton

JEFFERSON COUNTY
Lynch, Geo. M., Fairbury

KEARNEY COUNTY
Sutton, Bruce, Minden

LANCASTER COUNTY
LINCOLN
Colbert, Morgan R.
Everett, H. H., Jr.
Lotman, Harry Alfred
Sheldon, Keith
William, Russell I.

LINCOLN COUNTY
Anderson, Gustave Theodore, N. Platte
Anderson, Thorwald R., N. Platte

OTOE COUNTY
Campbell, G. C., Nebraska City
Thorough, Paul H., Syracuse

PAWNEE COUNTY
Harmon, Leo D., Pawnee City

PHELPS COUNTY
Brewster, Donald E., Holdrege

RICHARDSON COUNTY
Youngman, R. A., Falls City

SAUNDERS COUNTY
Kasper, R. J., Wahoo

SCOTTS BLUFF COUNTY
Black, Eugene W., Gering
Hanna, Joe T., Scottsbluff

SEWARD COUNTY
Clarke, Harry D., Seward

THAYER COUNTY
Panter, Lt. E. G., Hebron

VALLEY COUNTY
Round, John N., Ord

THE NEBRASKA STATE MEDICAL JOURNAL

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EDITORIAL

PUBLIC SCHOOL SYSTEM—A POOR ARGUMENT FOR STATE MEDICINE

Proponents of State Medicine frequently point with pride and conviction to the American public schools as an example of governmental benefaction. Prior to the time when the present system came into being education, they explain, was available only to children of privileged families who could afford the services of a private tutor. And since privileged families then were even fewer than now, a small segment of our population grew up with an appreciable interest in knowledge. The self-appointed benefactors of our own era stubbornly insist that the present system of private medical practice is as outmoded as education under private tutorship.

This comparison, in common with most of the arguments in behalf of medical socialization, is also based on propaganda with half-truths as the prevailing theme. In most of our states all children who are educable, regardless of social and economic status, are required by law to go to school. Compulsory attendance has forced all our inhabitants to take advantage of "free" education, our uplifters maintain, why not provide similar facilities for "free" medical care? Health, they argue, is certainly as important as education. The implication is that few people receive needed medical attention because of the fee-for-service system now in operation.

That this implication is pure rot designed to create a false impression must be obvious to every one after a moment's reflection. Admitting that the current methods of practice are not perfect, medical care today is not limited to privileged groups. In fact the critics of private enterprise seldom fail to emphasize that today the poor and the rich receive the best medical care. Neither the ambitious politician nor the professional reformer sheds tears over the "exhorbitant fees" paid out by the wealthy patient (another imaginary character). What bothers these ladies and gentlemen is that the poor actully receive a high quality of medical care free, and without the blessings from bureaucracy!

There are several phases of our educational system which need emphasis in this discussion. It is our sincere belief that if the children of this country were subjected to a type of medical care on a level with their elementary and secondary schooling the administrators of socialized medicine and the doctors who would serve under the system would be subjected to the severest condemnation. The fault, it must be understood, lies not in the school administrators nor in the teachers, although there is by no means a shortage of incompetents in this field. The evil is in the mass-production system; classes are over-crowded with pupils, guided by underpaid teachers who are physically strained and mentally fatigued. Theoretically conditions could be improved, and by very simple and effective means; higher appropriations for school expenditures. Actually, however, the plight of the schools the nation over, is pitiful. There has been a general but helpless feeling among educators for the past several years that the American schools are fast approaching a crisis. Many of them, for budgetary reasons, have been forced to close. Others have had to shorten their academic year in order to economize and thus face the threat of non-recognition by the higher institutions. All are struggling under the yoke of public indifference. And the children and the parents struggle with them.

We suggest that some honest sociologist undertake an evaluation of the educational achievements of our American young men and women who attended public schools and compare these achievements with their growth and development attained under private medical care. The Selective Service records can supply ample material for this study. We further suggest that all rejectees be included in this evaluation with due allowance for developmental anomalies for which neither the educator nor the physician should be blamed. Such a report would make interesting reading for Senators Pepper, Wagner, and Murray, and Representative Dingell.

WHAT ARE YOU DOING FOR THE NEBRASKA MEDICAL SERVICE PLAN?

Yes, we mean YOU—every member of the Nebraska State Medical Association. The Wagner-Murray-Dingell Bill failed to survive the public hearings by the Senate Committee on Education and Labor. This was fortunate in that it offered you another chance to save your professional freedom and your individual self-respect. It is only a breathing spell, however, not a signal for indifference or relaxation. On the contrary, it is an opportunity to redouble your efforts in the struggle against a ruthless force supported and pushed by pressure groups who remain blind and deaf to their dangerous proposals.

You have two strikes on your opponent. They do not consider themselves beaten however. You can be certain that early in the next session a modified version of the Wagner-Murray-Dingell Bill will be thrown into the Congressional hopper.

"What can I do?" you ask.

First: Familiarize yourself as thoroughly as you can with the significance of socialized medicine. Read the Organization Section of the Journal of the American Medical Association. Read in this Journal the releases by the Council on Medical Service and Public Relations of the American Medical Association.

Second: Don't hesitate to explain socialized medicine and what it may mean, to your patients, your friends, and your neighbors. You owe them that protection as a citizen and as a doctor.

Third: Support in whatever way possible the Nebraska Medical Service Plan. Thus far this is your only practical answer to the challenge about the high cost of medical care. Let the people know that they can obtain sickness insurance for themselves and their families at reasonable rates. If you see a chance to organize a group in your community do not hesitate to do so. It will be a service to those who participate. At the same time you will render a service to your own profession and incidentally to yourself.

You are a part of the Medical Service Plan.

MEDICAL PUBLIC RELATIONS

Organized medicine can learn something about public relations from industry. We can apply some of their technics.

The best public relations man in industry is the salesman. The good salesman sells his product honestly. He also sells the organization he represents on a basis of its integrity and its product.

The best public relations men in organized medicine are the private practitioners. If they practice honest medicine and express their honest, substantiated opinion during this critical period, they, as individuals can guide public opinion in favor of organized medicine more effectively than any organized group.

The future of medicine depends upon the attitude and activities of the private practitioners of medicine. If the private practitioner assumes an attitude of indifference or a quiet confidence in our superiority in the belief that the rest of the world believes in our superiority, he is practicing poor salesmanship and poor public relations. Many of our citizens, despite their respect for their family physician, lack faith in organized medicine and in the superiority of the profession in determining the future medical needs of our people. The public must be convinced of our superiority.

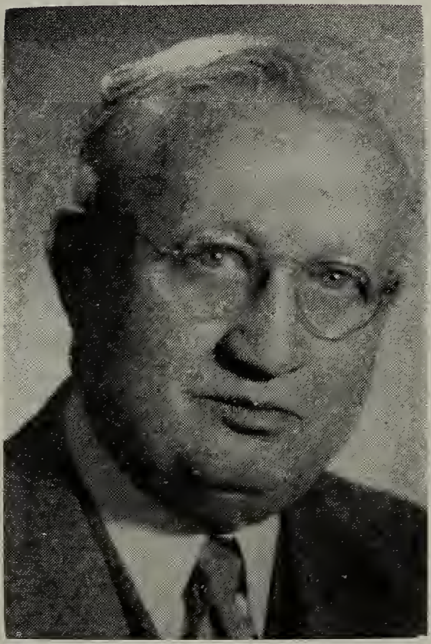
Remember, it is public opinion, not the opinion of the medical profession, that determines national policies.

—From the Journal of the Medical Society of New Jersey.

The mother who says "My daughter gets her poor teeth from me," implying there is an inherited factor in dental disease, is probably right.

Susceptibility in tooth decay seems to run in a family, very likely is inherited and may be sex-linked, Dr. Henry Klein, Senior Dental Officer, U. S. Public Health Service, found from a study of 5,400 parents and children in 1,150 families.

THE PRESIDENT'S PAGE



PRESIDENT EARLE G. JOHNSON
Grand Island

This is the month of the Mid-West Assembly. Many physicians from this area will want to take advantage of the facilities for refresher and postgraduate work offered by the Omaha Mid-West Clinical Society. The dates are October 28, 29, 30, 31, and November 1. You will find the program on page 419.

There is little more that I can say than to express satisfaction at the remarkable arrangement of subjects to be discussed by teachers of top rank standing in American Medicine. None can afford to miss this educational treat.

I should also like to call your attention to the National meetings scheduled for December in Chicago. Read the copy from the Council on Medical Service and Public Relations of the American Medical Association on page 425 of this issue. Remember, every Fellow of the American Medical Association is welcome to attend these meetings.

EARLE G. JOHNSON, M.D.
President.

Urological Complications of Pregnancy and Labor*

ROBERT McCAFFERY, M.D., and ELMER HESS, M.D.
Erie, Pennsylvania

Pregnancy is supposed to be a normal physiological condition. It is, in a perfectly normal woman, but, unfortunately, many women are not normal anatomical and physiological units. Many of these women are not aware of any physical defects until pregnancy ensues. Then, for the first time, they may become conscious of some sub-standard conditions. These may be discovered by their attendant physician. This is particularly true in reference to the urological tract. It may take a pregnancy to bring out anatomical and pathological urinary disturbances which might have otherwise gone on undetected for years. Quite frequently, even in spite of careful attention to the pregnant woman, many urological conditions, even grave pathology, may exist undetected until long after the child-bearing period is passed. We know that the urological tract is most frequently disturbed during pregnancy; therefore, it behooves us to pay particular attention to it during this so-called normal physiological condition.

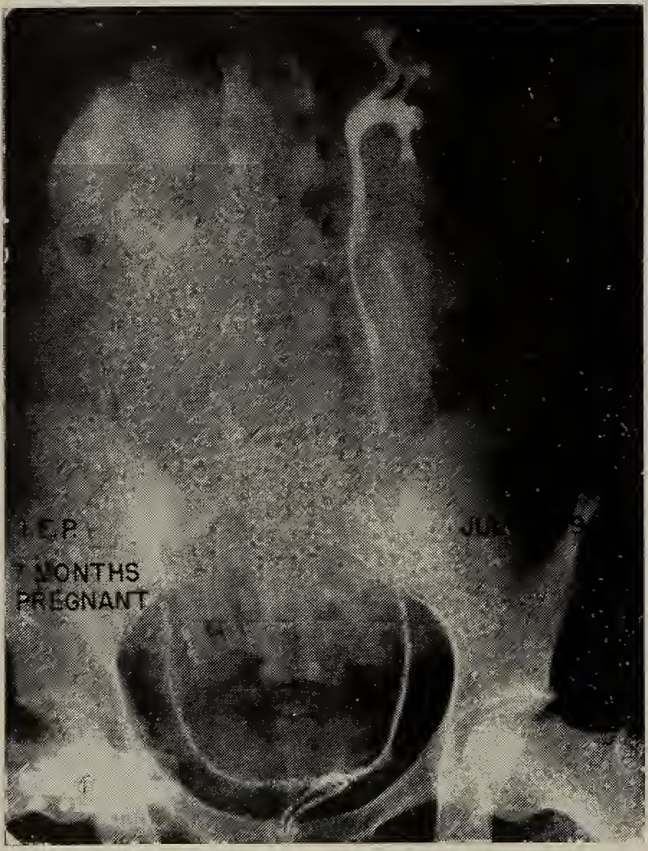


Fig. 1. E. P. Seven months. Symptomless dilatation of ureter and pelvis. Physiological.

The low-threshold kidney, the silent stone, the almost ever-present existence of organisms in the urine, pre-existing pathological conditions, and the congenital anomaly, all lend themselves to urological complications during this period. It will be our purpose to emphasize the diagnosis and treatment of these complications and to show, if possible, the valuable aid which the urologist can render to the accoucheur in the management of urological conditions which complicate pregnancy.

The pregnant woman, therefore, is subject to the several factors: anatomical, physiological, endocrinological, and pathological, which create frequent urinary complications. These can be grouped as:

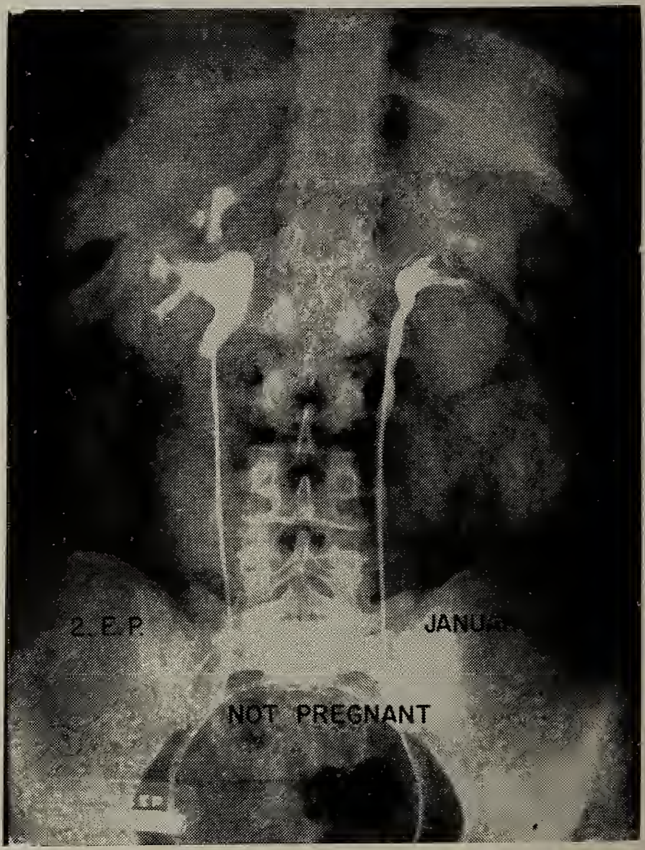


Fig. 2. E. P. Pyelectasis and calyectasis are clearing up. Patient is not pregnant.

1. Physiological, endocrinological, and anatomical changes.
2. Pyelitis, stasis, infection, stone, and hydronephrosis.
3. Toxemia of pregnancy.
4. Tumors of the urinary tract.
5. Accidents of birth.

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*Read before the Annual Sessions of the Nebraska State Medical Association in Lincoln, May 9, 1946.

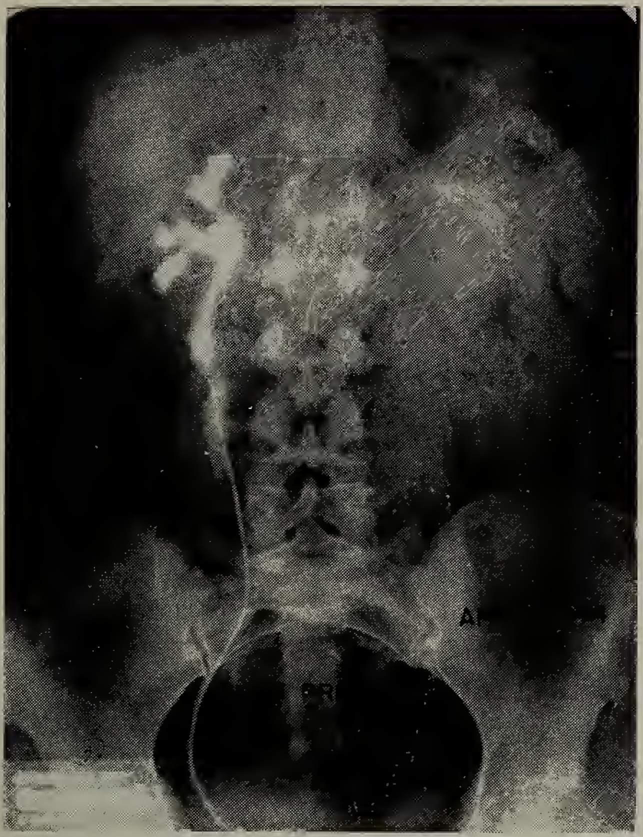

Fig. 3. E. P. Pregnancy has just begun, with some increase in the pyelectasis and calyectasis.

We know of no contraindication during pregnancy for a complete urological study. We have cystoscoped many women and catheterized their ureters, done repeated retrograde pyelograms and intravenous urograms without ever seeing a single untoward result. The complete urological examination, far from being contraindicated, is very definitely indicated in all of its phases for an accurate estimate of the condition of the urinary tract. While it is conceivable that rough cystoscopic manipulation and ureteral catheterization, plus the accompanying renal colic that may ensue following retrograde pyelography might be sufficient to cause abortion or premature labor, we have never seen this happen in our own experience. We seldom take a second series of x-ray pictures in a given pregnancy because of the possible danger of injuring the fetus. However, in those cases in which we have felt that urograms were necessary two or three different times during the pregnancy, we have never seen any changes in the fetus which could be attributed to over-exposure to x-ray.

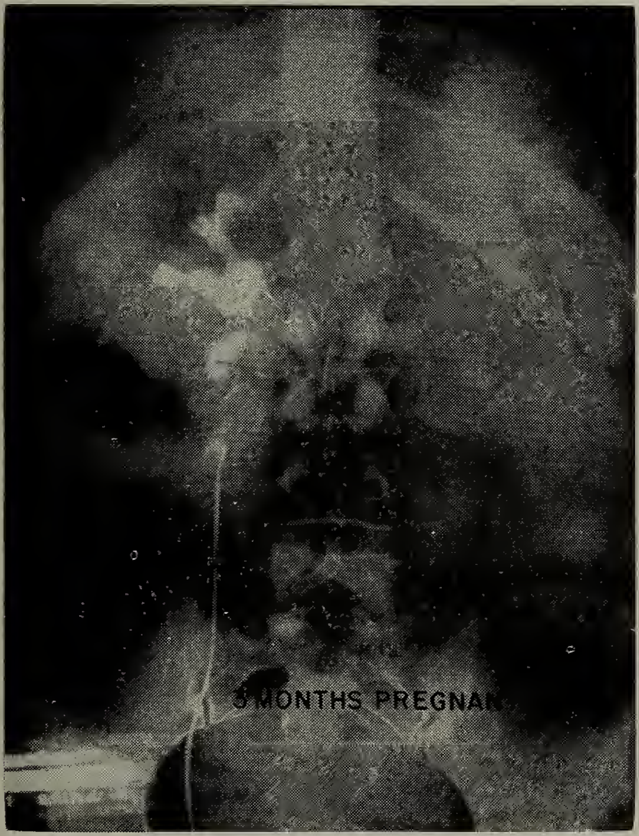

Fig. 4. E. P. Three months pregnant. The dilatation is progressing. No symptoms.

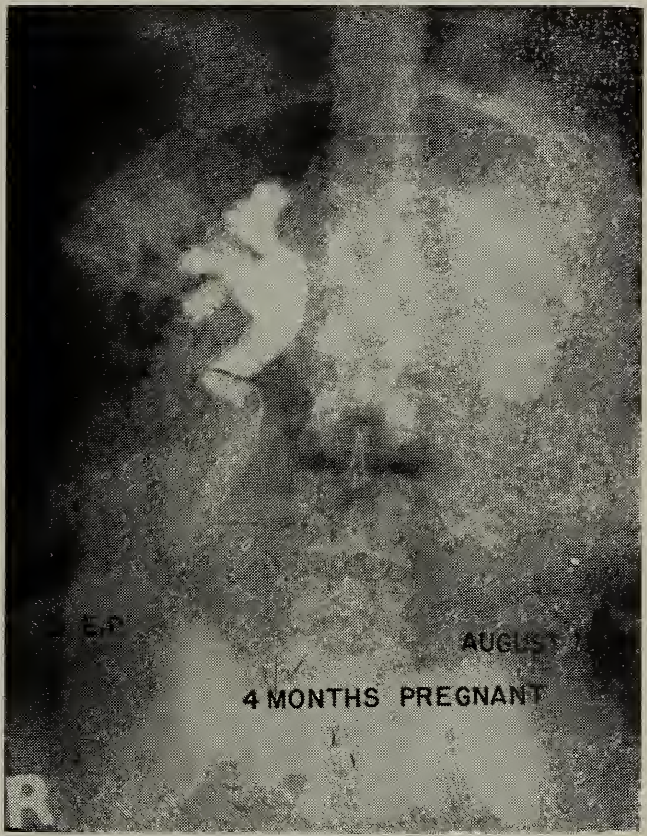

Fig. 5. E. P. Four months pregnant. Further dilatation of the ureter and pelvis. No symptoms.

THE PHYSIOLOGICAL AND ANATOMICAL CHANGES

Dilatation of the ureters and pelves can be demonstrated in 75 per cent of all pregnant women. This phenomena is most marked between the third and eighth month of pregnancy and it is more often rightsided.

The bladder participates in the changes

due to pregnancy by an increased dilatability of the urethra, the ureteral orifices, and the bladder musculature due to atony. This causes increased capacity. During the last month of pregnancy these changes undergo an involution resulting in a return to normal approximately six weeks after delivery. The bladder itself shows the increased atony for several days post-partum but it returns to normal tone more rapidly than does the upper urinary tract.

Hundley, Diehl and Diggs have shown that these changes in the urinary tract are caused by increased amounts of progestin in the blood stream with diminution in the estrogenic substance. The latter is known to cause increased muscle tone. During the third month of pregnancy, the anterior portion of the pituitary gland undergoes demonstrable increase in size and alteration in its histological structure. At the same time the gonadotropic hormone reaches a high concentration in the blood, exerting a stimulating effect upon the corpus luteum. During and after the eighth month, progestin decreases in the blood with an increase of estrogen. Involution of the pituitary and corpus luteum occurs postpartum and is followed by involution in the urinary tract with gradual return to normal. Hormonal influences, however, cannot explain all of these changes.

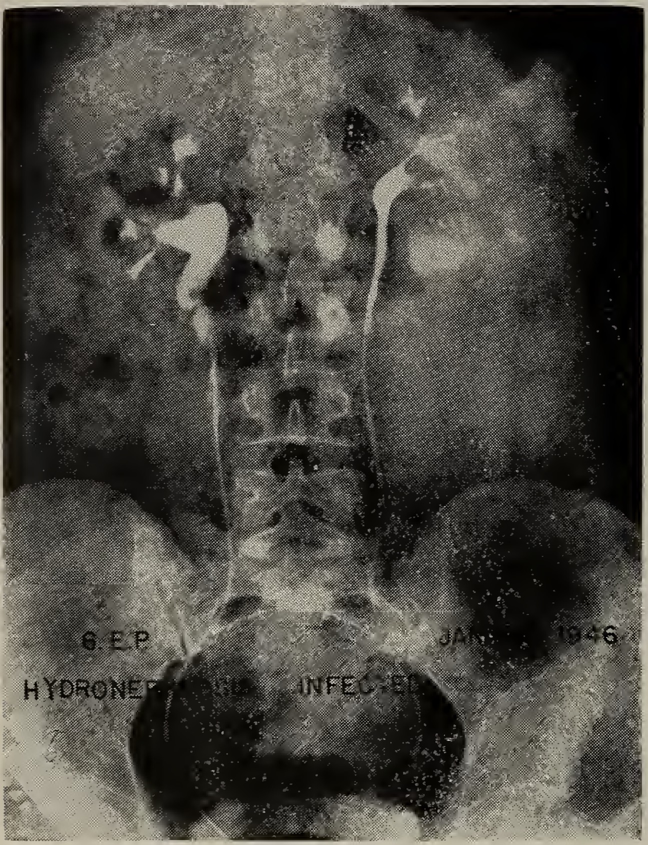

Fig. 6. E. P. Not pregnant. One and one-half years later, there is still some pyelectasis and calyectasis plus infection.

Dextro-rotation of the pregnant uterus, with twisting, particularly of the right ureter, must have its influence.

The dilatation of the ureters seems to occur above the pelvic brim. The ureters are rarely dilated below this point and dilatation above is seen only after the uterus rises to the level of the pelvic inlet. None of these changes are attributed to fetal position because of the highly variable changes in that position. This in itself may be disregarded as a cause of constant pressure. Figures 1, 2, 3, 4, 5 and 6 illustrate these changes in the same woman, both pregnant and non-pregnant.

PYELITIS OF PREGNANCY

The ever-present pyogenic organisms in the urinary tract have more opportunity to cause trouble in the pregnant woman because of the normal anatomical and physiological dilatation with its accompanying stasis. It is doubted if the term pyelitis of pregnancy is sufficient to fully describe the condition. Rather, the term should be "pyelonephritis of pregnancy." It is difficult to understand an infected renal pelvis without some extension to the parenchyma. The symptoms of the acute attack usually are severe pain on the affected side, with

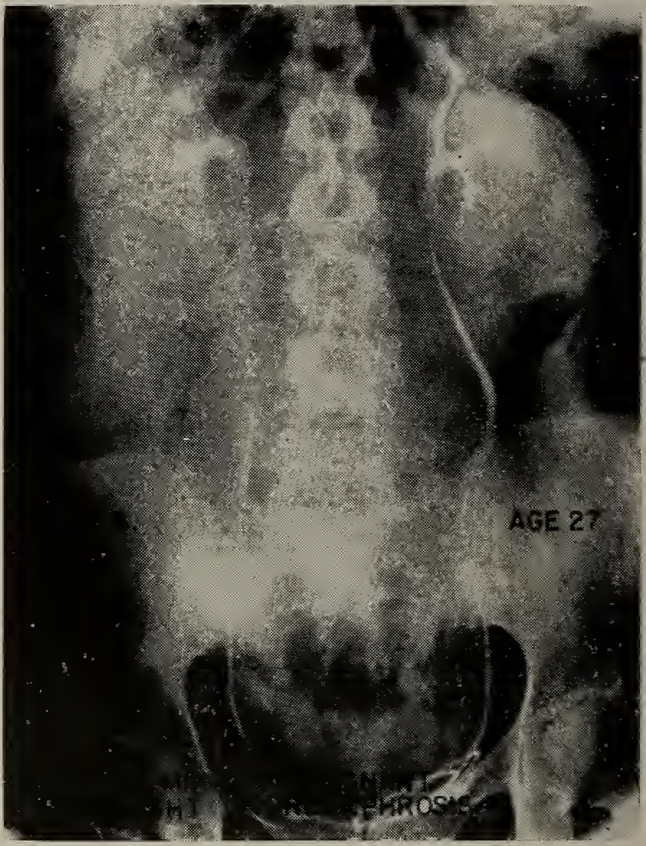

Fig. 7. R. S. 7½ months pregnant. Right pyelonephritis.

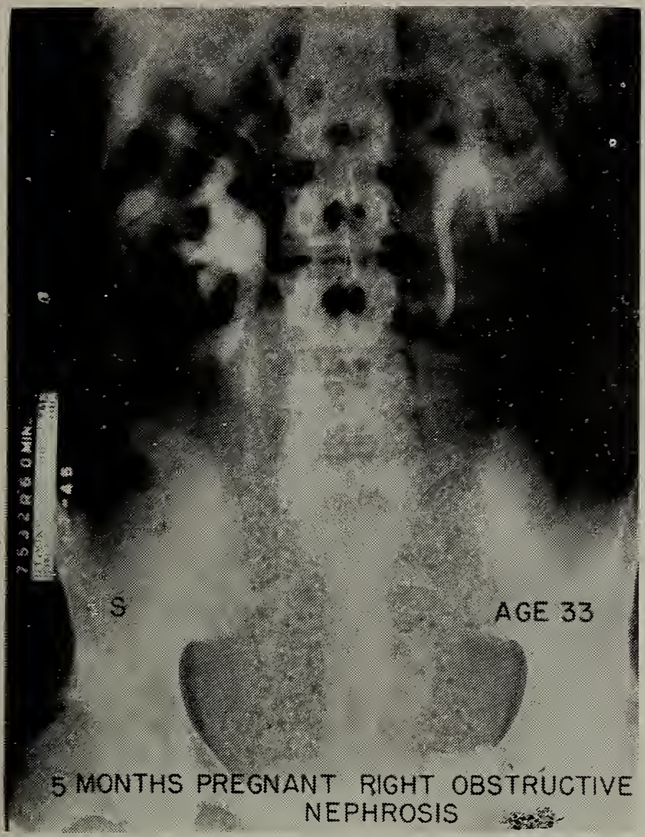

Fig. 8. S. 5 months pregnancy. Right obstructive nephrosis.

chills, high fever, and costovertebral tenderness.

Chronic pyelonephritis may give few, if any subjective symptoms during the entire period of gestation, but the condition may flare up at any time with an attack of acute pyelonephritis. This is usually on the right side but can be bilateral. Do not forget that

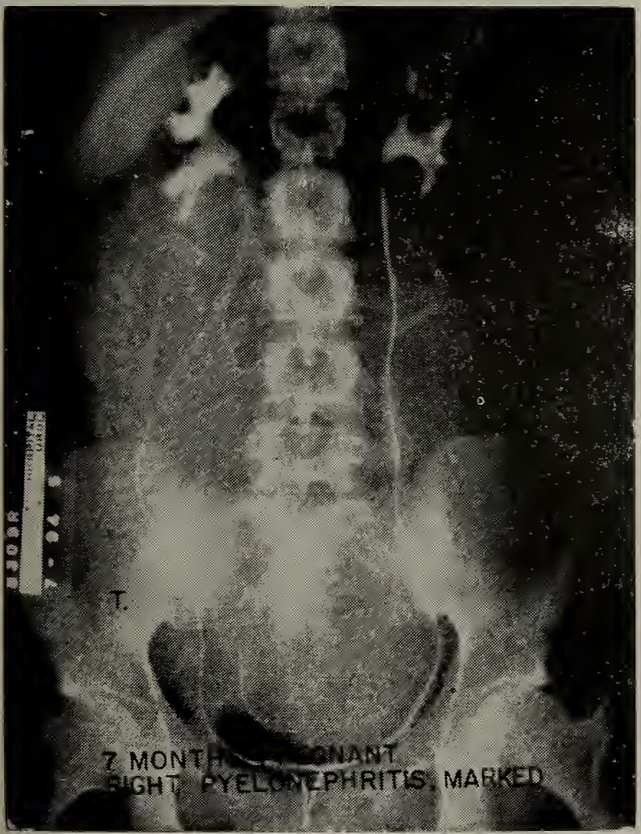

Fig. 9. T. 7 months pregnancy. Right pyelonephritis.

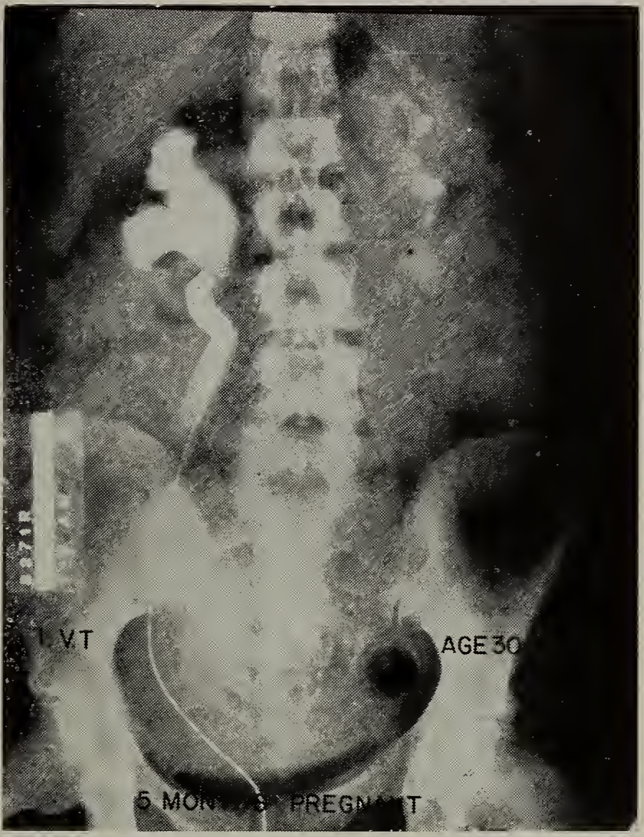

Fig. 10. V. T. 5 months pregnant. Right infected hydronephrosis.

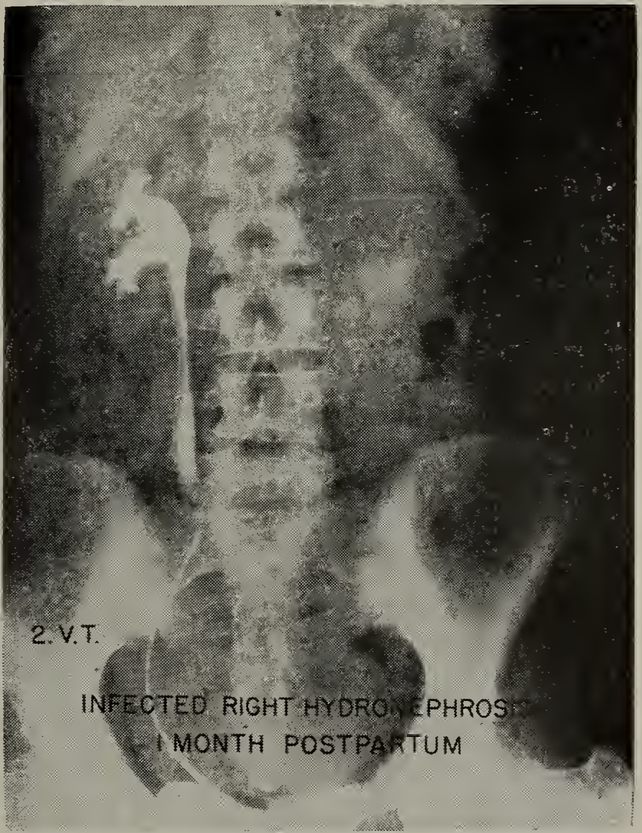

Fig. 11. V. T. Same patient. One month postpartum. Right infected hydronephrosis. Much improvement in the pyelectasis and calyectasis.

occasionally the left side may be acutely involved.

The differential diagnosis, depending on the side involved, must be made between appendicitis, acute cholecystitis, ovarian cyst twisted on its pedicle, ectopic pregnancy, pelvic inflammatory disease, diverticulitis, and mesenteric embolus.

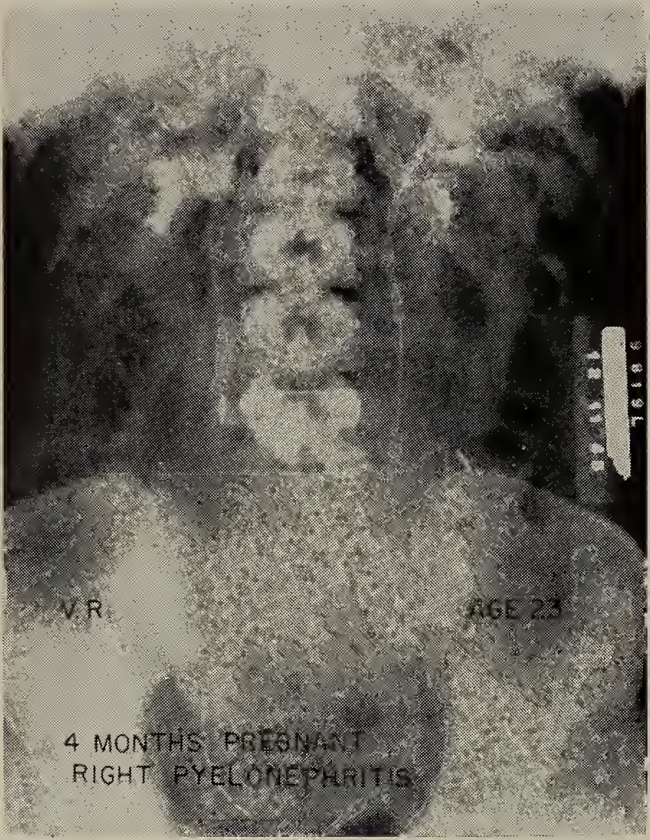

Fig. 12. V. R. 4 months pregnant. Right pyelonephritis.

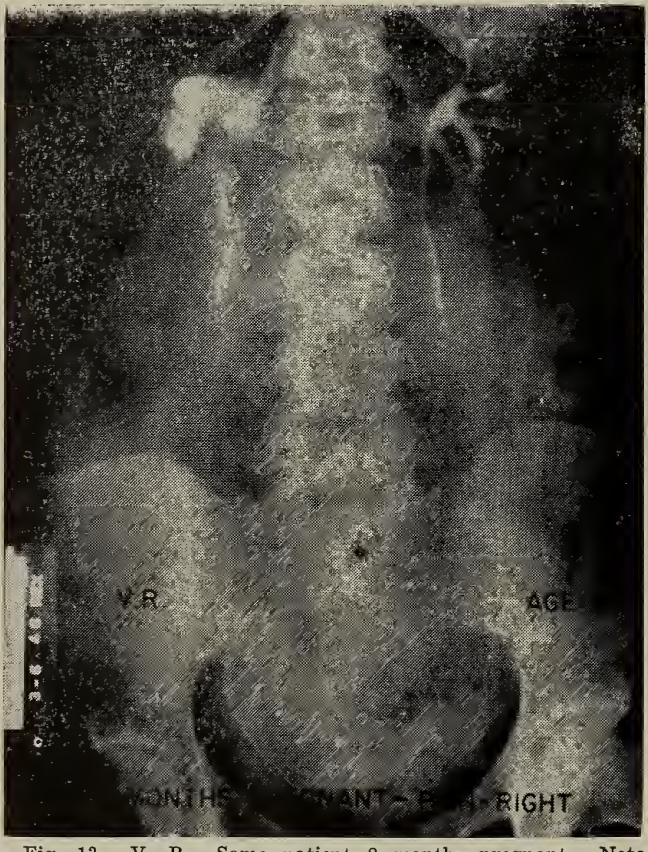

Fig. 13. V. R. Same patient 8 months pregnant. Note changes in the pyelogram.

The diagnostic tip-off may be the chill. As a rule, the condition is quickly suspected and too often the sulfa drugs are exhibited by the attending physician. To the urologist, this is a mistake, because these drugs may further handicap an already disabled kidney. It is in these cases that the cystoscopic drainage of the kidney by ureteral catheterization produces such spectacular results. The urine may be collected for culture and penicillin may be administered if the organism is susceptible. Often the colon bacillus is cultured and we believe this to be a secondary invader. Some form of mandelic acid should be exhibited for this organism. The simple drainage of the kidney pelvis may be sufficient. We have carried many cases of pyelonephritis of pregnancy to a successful term delivery with no other treatment. At times we have had to leave the catheter in from three to ten days and often this has been done for several periods during the pregnancy. Fluid balance can be easily maintained if the stasis is corrected mechanically.

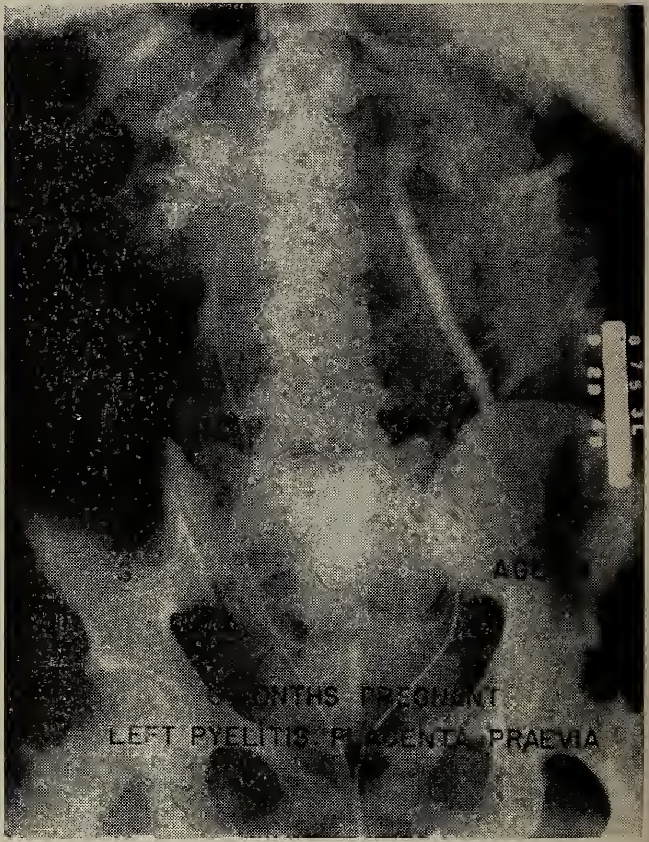

Fig. 14. G. 8 months pregnant. Left pyelonephritis. Placenta Praevia.

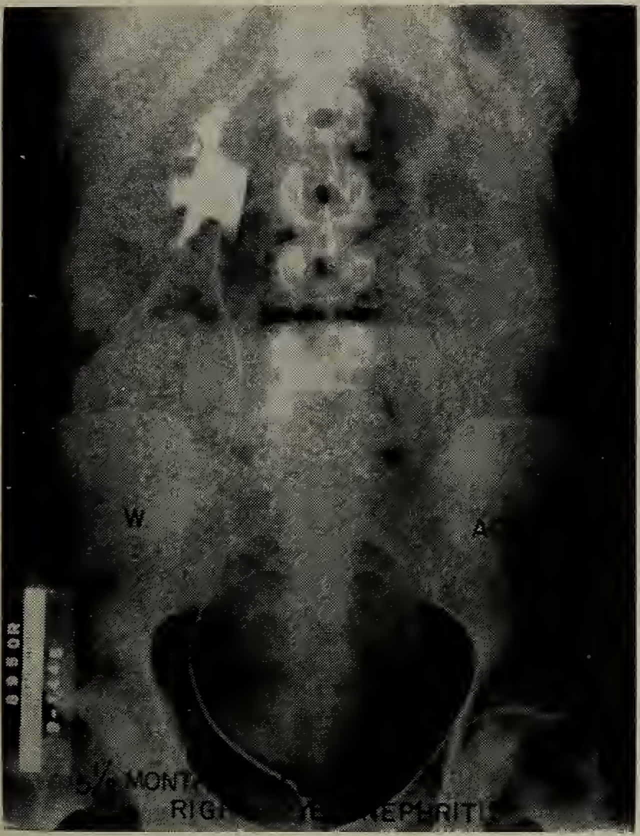

Fig. 15. W. 5½ months pregnant. Right pyelonephritis.

RENAL AND URETERAL CALCULI

Many a pregnant woman may have unilateral or bilateral renal calculi and become pregnant. We have seen two women recently:

One 56 years of age, mother of 13 children, whose sole evidence of any urinary pathology was the finding of excessive numbers of pus cells in the voided urine. All of her pregnancies were uneventful, yet at 56 years of age, a huge right staghorn calculous pyonephrosis was removed. Surely she had her disease all of her life. The second, a girl of 28, passed some gravel during the course of her second pregnancy three years ago. Outside of this episode, which was not severe, her pregnancies, with delivery, were uneventful. Since the last pregnancy, several attacks of right and left-sided colic have resulted in an appendectomy and other surgical procedures. A severe attack of left renal colic caused her to be referred to us. Examination revealed a large solitary stone in the right renal pelvis and multiple large and small stones in the left pelvis and calyces.

It is our belief that stones are not caused by pregnancy per se but that they usually exist prior to the pregnancy and may cause symptoms for the same reason as they do in the non-pregnant woman.

Figures 1 and 3, G.R., are pictures of a stone in the lower left ureter in a woman eight months pregnant. She has an anomalous kidney on the left side with double ureters joining below the brim of the pelvis. The stone caused pain and when first seen the obstruction of the left kidney was complete, with acute hydronephrosis. We have seen a fairly large number of both pelvic and ureteral stones complicating pregnancy. The differential diagnosis is again in the acute obstructive stage, with or without infection, the same as it is in acute pyelonephritis.

The treatment during pregnancy must be conservative unless ureteral blockage occurs very early in the condition. In the acute obstructive stage the same conditions must be ruled out of the diagnostic picture as were previously mentioned in the discussion of the differential diagnosis in the pyelonephritis or infected hydronephrosis of pregnancy.

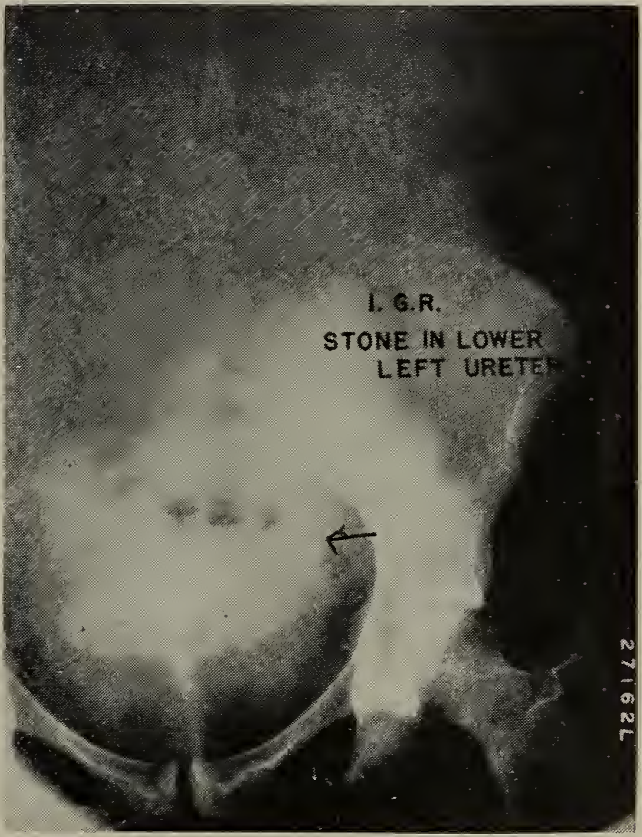

Fig. 16. G. R. 8 months pregnant. Stone in the lower left ureter.

Before the third month it is fairly safe to do an extraperitoneal ureterolithotomy. However, after the third month, any surgery on the urinary tract may cause abortion or miscarriage. The average stone can be passed by a filiform catheter or may be dislodged by catheter manipulation. If passed, a ureteral catheter may be left in more or less indefinitely so that urinary drainage can be accomplished. We have been able to carry every ureteral stone case to term without open surgery on the urinary tract by careful manipulation and catheter drainage. Surgery should be postponed, if possible, until after delivery. Silent renal stones should not be disturbed surgically unless there is danger of renal insufficiency. We have never advised the emptying of the uterus because of this complication. Again, we believe that surgery should be postponed until after delivery, at term, if possible.

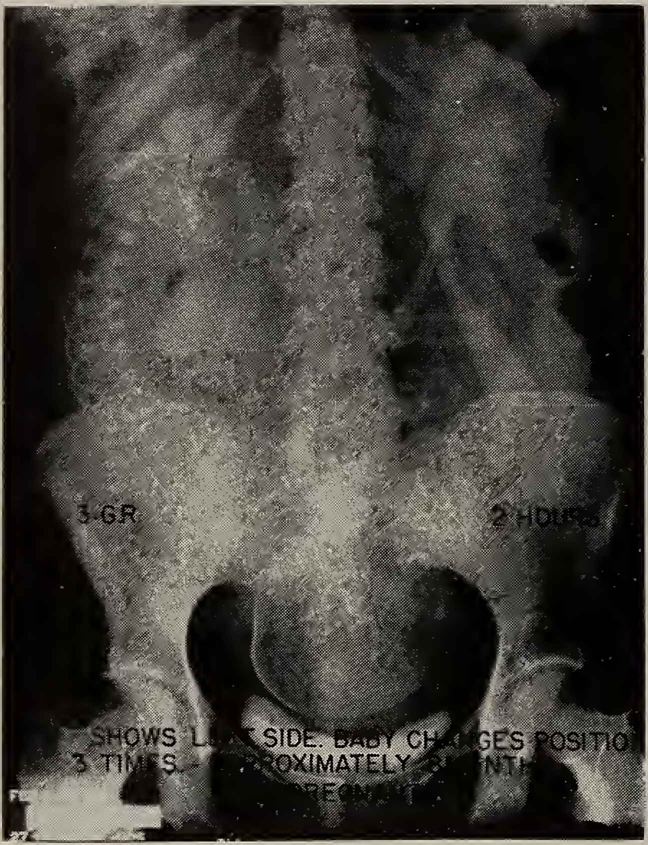

Fig. 17. G. R. Stone arrested at junction of double ureter. Calyectasis and pyelectasis in both sections of the double kidney.

HYDRONEPHROSIS

When we discuss hydronephrosis in pregnancy, we are not thinking of the hydronephrosis which ordinarily takes place as the result of physiological changes during this period. We are thinking more of the hydronephrotic case due to congenital ureteropelvic constrictions which are greatly aggravated by the pregnancy and of those cases of hydronephrosis with hydroureter due to various causes which exist prior to the pregnancy and which, again, are aggravated by it.

The diagnosis in these cases is comparatively easy with a careful urological survey. These cases require continued observation during the entire period. The commonest acute complication in these conditions is infection. The treatment is carried out on the same basis as that for the pyelonephritis of pregnancy. We have been able to drain all but one of our cases by ureteral catheterization. In one case of massive hydronephrosis, greatly aggravated by the pregnancy, we were able to get a ureteral catheter through the ureteropelvic stricture after we had tapped the hydronephrosis with a trocar and cannula through Petit's triangle. In this case we milked a small catheter into the pelvis of the kidney and allowed the kidney to drain both ways until after delivery. The huge hydronephrotic sac was removed surgically several months later.

TOXEMIA OF PREGNANCY

For years, the problem of the toxemias of pregnancy has been rendered obscure by the many confusing classifications and terminology. It is our impression that the toxemias of pregnancy should be classified as a vasculo-renal disturbance featured by hypertension, albuminuria, and edema, with gradual suppression of urine, and that the process should be regarded as the same pathological entity. Briefly, the most constant lesion found is seen in the renal glomerulus as a narrowing of the capillary lumen with ischemia and thrombosis of the capillary tuft. It is full-blown only in the severe preeclamptic and the true eclamptic kidney but always some degree of glomerulitis is found.

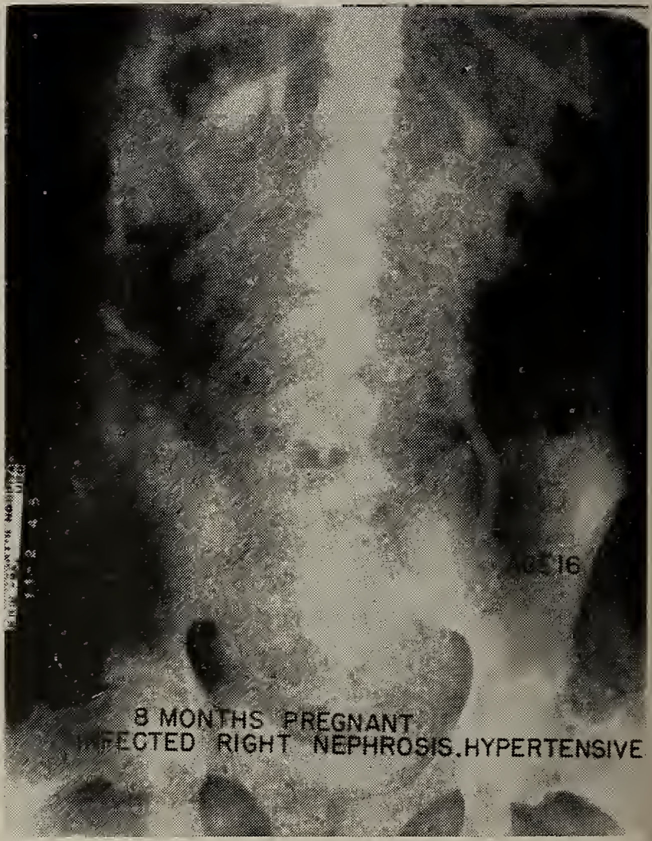

Fig. 18. 8 months pregnant. Infected right nephrosis. Hypertensive.

We like to consider toxemia in four states:

1. The mild toxemia of early pregnancy which is manifested by nausea and vomiting.

2. That in which there is mild hypertension and a little albuminuria.

3. The so-called pre-eclamptic stage with a little more hypertension, some albuminuria and some edema.

4. The eclamptic or terminal stage which is manifest by hypertension, scanty urine, massive albuminuria, edema, and convulsions.

It is our feeling that the term pre-eclamptic and eclamptic should be used only in classifying the particular phase of the toxemia present. If fairly early in pregnancy there is indication that the blood pressure is rising, or some mild albuminuria is found, the early consultation with the urologist may prove to be very beneficial. By ureteral catheterization any infection or obstruction that may be present can be discovered and relieved and will remove from the embarrassed kidney such additional handicaps that may hasten the third, and later on the final stage of the toxemia. We feel sure that we have prevented both the third and fourth stages of the toxemia by such aids.

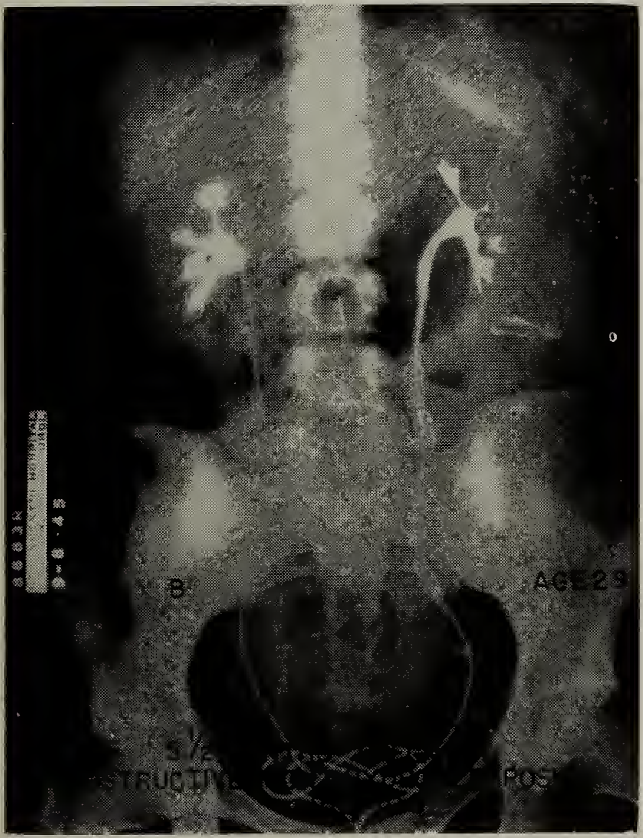

Fig. 19. B. 5½ months pregnant. Hypertension. Right obstructive hydronephrosis.

Certainly, we must consider the low-threshold kidney with its latent functional inadequacy as a definite predisposing factor in the development of toxemia under the burden of pregnancy. We must also consider that the essential hypertensive patient is a true candidate for toxemia if she becomes pregnant. In these women it is wise to have an early urological examination to rule out chronic pyelonephritis, calculous pyelonephritis or nephrosis, polycystic disease and other obstructive and infectious diseases in the urinary tract. Treatment of these, if found, may prevent the development of the toxemia in the third and even the fourth stage, while in the true nephritic who becomes pregnant, urological examination again is necessary because of the suspicion of an altered vasculo-renal function which, too, may develop in the toxemia in the latter months of pregnancy.

The role of the urologist is to distinguish all of these varying pathological entities and to assist the kidney by conservative measures so that further renal injury may not take place during this period.

Important in estimating the need for a urological survey is the previous history of the patient which should include a past history of infectious diseases, such as scarlet fever and other streptococcic infections, and in particular, a history of previous rheumatic fever. A high incidence of renal toxemia has been observed in women having had these diseases and who apparently are in fairly good health when they become pregnant.

Vitamin E has also been found to be of value in the prevention of this condition. Quite frequently, we have been called in to see patients who have been in the fourth or eclamptic stage, with almost complete anuria, convulsions, hypertension, et cetera, and some of these patients have been greatly benefited by ureteral catheter drainage. The exhibition of the barbiturates, magnesium sulphate, and other treatment to relieve the convulsions is essential while attempts at stimulating diuresis are made. In this terminal stage the uterus must be emptied rapidly, as a rule, and the child as well as the mother may be lost. However, some of our obstetrical friends tell us that the convulsions may be completely controlled by barbiturate therapy and that the rapid delivery quite frequently will save the child as well as the mother.

We have seen a large number of cases of toxemia of pregnancy which we believe we have prevented from advancing to the pre-eclamptic and the eclamptic stages by the judicious use of ureteral catheter drainage and the proper stimulation of the kidney by maintaining body fluid balance. We unhesitatingly restrict the use of salt in these people.

One of us who has been an obstetrician for years, describes the obstetrical treatment of the toxemia of late pregnancy as follows:

1. Complete physical examination no later than the fourth month of gestation. Special attention is paid to foci of infection. Indications of urinary tract pathology should be investigated. Record of blood pressure and urinalysis is initiated and should be scrupulously maintained. A weight chart should be kept.

2. The diet should be balanced for adequate intake of fat, carbohydrate, and protein, which will allow a weight gain of no more than twenty to thirty pounds. Vitamins may be supplied.

3. In the presence of hypertension, albuminuria or edema, a thorough search must be made to rule out pyelonephritis and chronic nephritis. Elimination of urinary infection should be carried out by cooperation with a urological consultant. These patients are put on a salt-poor diet and a limited protein intake. Sixty grams of protein is an adequate daily portion. Bowel elimination is obtained by mild, regular catharsis. Fluid intake is restricted to not over six to eight glasses per day. Restriction of activity and enforced bed rest are indicated in cases showing progressive hypertension. In severe pre-eclampsia featured by a systolic blood pressure above 105 mm. of mercury, increased edema, and a three or four plus albuminuria, the treatment must be more specific and vigorous. Bed rest is imperative.

Sedation is obtained by using sodium amytal 3 to 6 gr., seconal 3 gr., phenobarbital 1½ to 3 gr., repeated every 6 to 8 hours. Fluid intake is restricted to 800 cc. every 24 hours. Diuresis is promoted by intravenous glucose 20 to 50 per cent or sucrose 20 per cent. Magnesium sulphate in 10 per cent solution in amounts of 5 to 20 cc. intravenously or in 25 per cent solution, 2 cc. intramuscularly, is used for diuresis and for its sedative effect. Morphine may be of value in impending convulsions.

Induction of labor may be necessary. This can be accomplished by giving 2 ounces of castor oil. If possible, it should not be done before the 34th week. If the pregnancy is under the 34th week, it should not be done except in the most extreme cases. Caesarian section is best restricted to those cases displaying disproportion between the birth canal and fetus or in abnormalities of presentation. If, however, convulsions have started, intravenous barbiturates given in dosage of sodium amytal 6 gr., pernoston 4 to 6 cc., or sodium pentabarbital 6 gr. is used intravenously.

Convulsions are rarely seen in patients under these drugs. Rectal ether may be used. Again, an attempt is made to promote diuresis by the use of these drugs. As the excretion of urine increases, the solutions may be administered in greater volume and in less concentrated form. Many eclamptic patients can thus be carried to the point where the fetus is viable and a live baby may be delivered. However, if conditions are so serious that immediate induction of labor is indicated, the method of choice is the insertion of a suitable sized Voorhees bag, with or without preliminary rupture of the membranes. This procedure rarely fails and should take precedence over abdominal delivery. Postpartum eclampsia is not seen very often but should be kept in mind in all pre-eclamptic patients for at least a week following delivery, and the patient should receive adequate sedation during this period. To this therapy should be added such manual procedures as are necessary to relieve stasis in the urinary pelvis.

TUMORS OF THE URINARY TRACT

There is no reason why a pregnant woman could not have a tumor in the bladder, ureter, or kidney. We have never seen this pathological condition in pregnancy. If we did, however, it is our belief that a decision would have to be made as to whether the mother should be carried to term conservatively in the hope of getting a live baby, or whether the contents of the uterus should be completely disregarded and the tumor itself treated. One's judgment would be based upon the number of children the woman already had and the stage of the pregnancy at which the tumor is discovered; also the type of tumor and the possibility of cure for the mother would have to be considered. However, it can safely be said that the exhibition of either x-ray or radiation therapy would be contraindicated until the uterus was emptied.

After delivery a quite frequent complication is overdistention of the bladder. The patient may dribble from an overflow retention or she may void the overflow at fairly regular intervals. A retention catheter for a few hours or a few days may be a valuable aid in the restoration of the bladder to its normal tone with normal voiding.

Now and then, after a difficult forceps

delivery, a uretero or a vesico-vaginal fistula occurs. We have seen one case following a caesarian delivery where a vesico-uterine fistula occurred. The management of these conditions must fall into the postpartum period and corrective surgery is almost always indicated. Most of these lesions may be more successfully handled by the urologist than the operating gynecologist unless the latter is trained in both specialties.

We have had to remove a kidney for a uretero-vaginal fistula and we have had to transplant a torn ureter into the bladder following such an accident. The correction of vesico-vaginal fistula may be very simple but, as a rule, it is one of the most difficult of all plastic operative procedures. Surgically, the fistula may be approached per vaginam or trans-abdominally where the fistulous tract is high in the cul-de-sac. Injury to the vesical neck is also common following delivery and stricture of the ureter due to granular urethritis is a late development of childbirth injury.

CONCLUSIONS

This communication is presented with the hope that all of those practitioners, obstetricians or general practitioners, who have to do with the care of the pregnant woman, will be on the alert for those cases where the services of a competent urologist will be helpful. It is our opinion that this cooperation will often prove beneficial to those two most important persons—the pregnant woman and her unborn child.

BIBLIOGRAPHY

Crabtree, E. G. and Prather, G. C.: Urological Diseases of Pregnancy. Williams & Wilkins Co., 1942.

Robertson, H. E.: Hydronephrosis and Pyelitis (Pyelonephritis) of Pregnancy. W. B. Saunders, Philadelphia, 1944.

Hundley, Diehl and Diggs: Quoted in Everett, H. S., Gynecological and Obstetrical Urology. Williams and Wilkins Co., 1944.

Smith, G. V. and Smith, O. W.: Quoted in Hoffman Female Endocrinology. Saunders and Co., 1945.

Baird, D.: Anatomy and Physiology of Upper Urinary Tract in Pregnancy. Journal of Obst. and Gynec. British Empire, 38:5-6, 1931.

Shute, Evan: Am. J. of Surgery, 81, No. 4, April, 1946.

Shorr, E.: Possible Usefulness of Estrogens and Aluminum Hydroxide Gels in Management of Renal Stone. J. Urology, Vol. 53, No. 4, April, 1945.

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IN THIS ISSUE

THE urological problems encountered during pregnancy and labor are all too familiar to every practicing physician. We present a comprehensive discussion of some of these problems in this issue of our Journal. Many readers will recall the paper as read by Dr. Elmer Hess of Erie, Pa., during the Annual Meeting of our Association last May. It is on page 392

THE efficacy of penicillin in the treatment of syphilis has been under discussion for some time. The subject is presented by Dr. Arthur C. Curtis of the University of Michigan. You will find it on page.................. 402

CARCINOMA of the rectum in itself is a grave problem. Surgery usually necessitates a colostomy which in most instances makes life miserable for the patient. Progress in the elimination of permanent colostomies was discussed by Dr. R. Russell Best of Omaha at the last Annual Meeting in May. The paper appears on page................................ 406

WE also present the paper on the Cancer Control program by Dr. James Kelly, Chairman of the Cancer Committee of the Nebraska State Medical Association. You will be interested in finding out about the National organization in which we all have a direct interest. Read the paper on page.. 412

AGAIN we present a paper from the Proceedings of the Nebraska Methodist Hospital Staff. Read about the interesting case presented by Dr. Clyde Moore, and also read the discussion. The paper is on page............ 415

Syphilis and Penicillin Therapy*

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Since the original studies by Mahoney and his associates(1) there is adequate proof that penicillin regularly administered in adequate amounts over a long enough period of time will cure a large proportion of patients who have acute syphilis(2, 3, 4, 5, 6). Its use for syphilis in pregnancy and syphilis in the newborn seems just as effective(7, 8, 9). In central nervous system syphilis, most authorities agree that to date the clinical course and spinal fluid changes, following its use, compare favorably with those found after therapeutic fever(10, 11, 12, 13, 14, 15, 16).

The advantages of penicillin therapy in syphilis consist of its relative ease of administration, non-toxicity, and rapid spirochaetocidal effect. Most courses of therapy are completed in 7½ to 15 days. The reactions, incident to its use, are minor and in 14,000 cases treated in the U. S. Army by Pillsbury(4, 5) only one patient did not complete his course because of drug reactions. The fact that almost all patients who begin such therapy complete the full course is an exceptionally important factor in the management of an acute, infectious disease such as syphilis. Toxicity varies from mild Herxheimer reactions, consisting of fever, accentuation of lesions present or urticaria, angioneurotic edema and exfoliative dermatitis. Most are mild and seldom need worry the physician who is responsible for the treatment.

Spirochaetes disappear from the lesions in a matter of hours(1) and in most patients lesions are healed by the time the treatment is completed.

There still is no agreement on the problem of optimum time dosage relationship in the treatment of any of the types of syphilis. Penicillin alone, combined with arsenic, bismuth, arsenic and bismuth, and fever are being used. Other salts than sodium penicillin are likewise being given as well as more slowly absorbed compounds such as penicillin in peanut oil and beeswax. Most reported studies in acute syphilis consist of the administration of penicillin by the following plans:

1. 40,000 units of penicillin given every 3 hours for 60 doses. The total amount received is 2,400,000 units.

2. 20,000 units of penicillin given every 3 hours for 60 doses, plus 40 mgm. of oxyphenarsine hydrochloride given daily for 8 doses.

3. 20,000 units of penicillin given every 3 hours for 60 doses, plus 40 mgm. of oxyphenarsine hydrochloride, given the first, third, fifth, seventh, and ninth day, and 0.2 gm. of bismuth salicylate in oil the first, fourth, and eighth day.

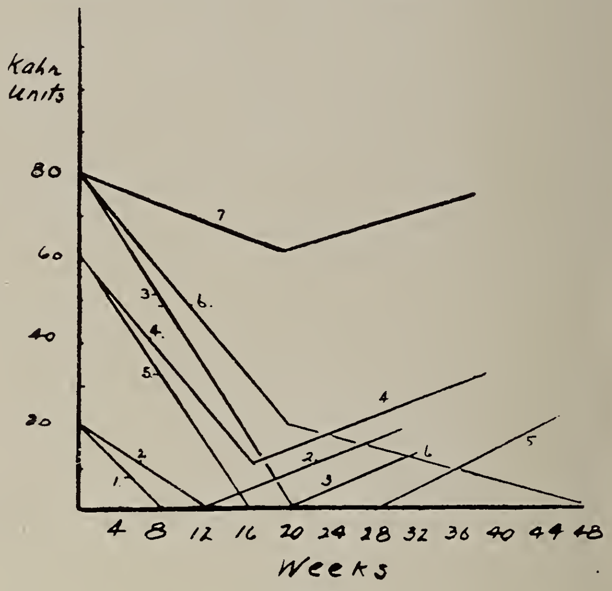

Chart I.

This diagram shows several possibilities in serological titre behavior after penicillin therapy. Cases 1 and 5 fall to negative and remain there. Cases 2 and 3 become seronegative then relapse. Case 4 falls in titre then relapses. Case 6 slowly falls to negatively. Case 7 is barely affected by treatment.

4. 20,000 units of penicillin given every 3 hours for 60 days, plus 0.2 gms. of bismuth subsalicylate given the first, third, fifth, seventh, and ninth day.

The comparative value of these several systems of treatment must be determined in the future and many other plans, both initiated and tried before the final answer is known. It would not be premature to say that all are effective and the actual differences are minor, except that any procedure incorporating arsenic is more toxic than one with bismuth. Penicillin alone is the least harmful of any. Any schedule used must be given as regularly as possible to obtain the greatest effectiveness, and the maximum time between doses of sodium or calcium penicillin must be no longer than 3 hours.

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*Read before Annual Sessions of the Nebraska State Medical Association, Lincoln, May, 1946.

The results of such treatment can only be measured by the healing of the lesions, by the fall of the quantitative serological test to negativity and by its subsidence there. Re-infectivity is also proof of cure if super infection is denied. The problem of relapse versus re-infection is now a major one because there is ample evidence that penicillin biologically cures patients with early syphilis. As a result relapse is difficult to differentiate from re-infection(6). In some patients such as those cited below, the term "ping-pong" syphilis has been aptly used by William E. Graham(6).

Lawrence had a sexual contact with a Miss X during December, 1943. He later met Margaret and had sexual contacts with her. A penile lesion appeared January 30, 1944, but he did not appear for treatment until February 26, 1944. At this time his lesion was darkfield negative. His Kahn S.T.S. was 4+, 4 units and his C.S.F. negative. Miss X was treated at the University Hospital for secondary syphilis. Lawrence was treated by the 8-day drip method, receiving 1080 mgm. of oxyphenarsine hydrochloride and 720 mgm. of insoluble bismuth.

Margaret, who had had many sexual contacts with Lawrence, before and after his treatment, but admitted no other ones, developed a probable chancre February 28, 1944, which persisted for a month and was then found to be darkfield positive. On March 30, she was admitted to the University Hospital, with secondary syphilis, S.T.S. 4+, 20 units and C.S.F. negative. She was also treated by massive arsenotherapy, receiving 1080 mgm. of oxyphenarsine hydrochloride and 720 mgm. of insoluble bismuth.

On March 30, 1944, Lawrence had only 1 unit in his S.T.S. and on May 1, he was S.T.S. negative. Margaret was infectious before that, but on May 16, after treatment, had a doubtful S.T.S.

SEROLOGICAL TITRES

Lawrence		Margaret	
2-26-44	4 units 2-28-44		
3- 6-44	4 units		
	C.S.F. Negative		
3- 9-44	4 units		
3-30-44	1 unit		
		3-31-44	20 units
5- 1-44	Negative		3-31-44 C.S.F. Neg.
		4-10-44	40 units
6- 1-44	3 units		
		5-16-44	Doubtful
6-12-44	40 units	6- 1-44	Negative
	C.S.F. Negative		C.S.F. Negative
7-20-44	1 unit	6- 3-44	Negative
		6-12-44	1 unit
9- 6-44	Negative		
		7-22-44	Negative
11-16-44	Negative		
		9-25-44	Negative
1- 8-45	Negative		
3-20-45	Negative	11-17-44	Negative
		1- 8-45	Negative
		3-22-45	Negative
		7- 2-45	Negative

After Margaret had finished her treatment in March, she returned home and again had intercourse with Lawrence. Both returned to the University Hospital on June 1, 1944, for re-examination. Lawrence had a darkfield positive penile lesion and his Kahn S.T.S. was 3+, 3 units. His C.S.F. was negative.

Margaret had a darkfield positive lesion on the cervix, with a repeated Kahn S.T.S., which was negative. Her C.S.F. was negative. Both received 1,200,000 units of penicillin (20,000 units intramuscularly q 3 hours for 60 doses) and were dismissed on June 10, 1944. They have remained sero-negative since then.

If the course of the infection is summarized, Lawrence received the organisms from Miss X and gave the infection to Margaret. He was then treated and presumably cured, but Margaret re-infected him, with the original strain. She was then treated and presumably cured, but was re-infected with the original strain by Lawrence. Finally, both came into the hospital and were treated together, and both are sero-negative to date.

Available figures show the relapse rate to be in proportion to the age of syphilis. Table I from Pillsbury(4) using Schedule I is illustrative.

TABLE I

Type of Syphilis	Total Cases No.	% Relapse 6 Months
Primary Sero-Negative	274	1.8
Primary Sero-Positive	271	12.2
Secondary	111	27.9

Although some members of this group may well be re-infectious, the trend of relapses shows how important it is to diagnose and treat syphilis as early as possible.

Relapse may occur early or late, but most relapses appear either as clinical or serological ones during the first six months after treatment. Table II from Pillsbury(4) is illustrative of relapse incidence. If no signs of relapse appear during the first year, it is reasonable to assume that relapse will be unlikely thereafter.

TABLE II

RELAPSE OR REINFECTION

Time	No. Cases
0- 4 Weeks	6
4- 8 "	13
8-12 "	14
12-16 "	16
16-20 "	10
20-24 "	3
24-28 "	3
32 "	1
45 "	2
	68

The per cent of serological cure of penicillin-treated cases at the end of six months, using Schedule I is shown in Table III. It is again apparent that the earlier the disease is diagnosed and treatment completed, the much better are the results. Other schedules may cause these figures to vary in each group, but as yet no schedule is ideal.

TABLE III (from Pillsbury[4])

Type of Syphilis	% Negative S.T.S. at 6 Mos.
Primary Sero-Negative	98.2
Primary Sero-Positive (656 Cases)	87.8
Secondary	72.1

No better expression was ever coined than Stokes statement that "from A.D. 1943, it will take a year to guess, two years to intimate, five years to indicate, and a decade or more to know what penicillin does in syphilis"(19).

The introduction of quantitative serological tests have been of great value in following the course of patients after rapid therapy. Such tests give an accurate yardstick in telling whether the serological course is progressing as expected or whether relapse is evident. By the use of such tests many relapsing patients can be diagnosed as such during the serological phase and retreated. This may often prevent the appearance of infectious lesions and dissemination of the infection to others. Any patient treated during the acute stages of syphilis should have quantitative serological tests done at monthly intervals for the first year. If sero-negative at the end of that time, quantitative test should be done at intervals of two or three months for the next year. The clinical course of a patient, followed by such test is shown in Table IV.

TABLE IV (Mahoney[20])

	Diagnostic Flocculation		Complement Fixation
Days	Mazzini	Kahn	Kolmer
0	44421	4442	444441
1	44421	4442	444443
9	44442	44441	44442
23	432	441	4443
30	4442	4431	4442
37	4421	41	332
44	432	4+/—	443
51	42	1	4441
58	43	1	—
65	21	—	—
72	21	—	—
80	2+/—	—	—
86	2	—	—
93	1	—	—

The fall to sero-negativity takes place first in the complement fixation test, which is the least sensitive, and last in the Mazzini, which is the most sensitive. The slow progress in all tests to sero-negativity, after three months, is evidence of a probable favorable outcome, but relapse can, and does occur after a long period of sero-negativity. In acute syphilis quantitative serological patterns usually follow the scheme illustrated in Chart I. Low quantitative serological tests may rapidly fall to negative and remain there, or they may relapse serologically and the patient need retreatment (Chart I No. 4). Another type of serological pattern seen is that where the test becomes negative, then after an interval of one or two months again becomes positive (Chart I No. 5). This may mean relapse or re-infection, but in any case, more treatment is indicated. At times patients are seen who have a fall in the titer of the serological test, which is prolonged. If these patients' tests are followed, they may eventually revert to negative, or increase in titer, manifesting re-activation of their infection (Chart I No. 6). More rarely one sees a patient whose serological pattern changes little with the form of therapy used (Chart I No. 7).

In any case needing retreatment the unit dosage level of penicillin and time interval should be the same, but the number of doses and amount of penicillin should be twice as much. If Schedule I is used, the treatment scheme would be 40,000 units of penicillin, given every 3 hours for 120 doses.

The total amount received would be 4,800,000 units. Every relapsing patient and every patient who has been treated for acute syphilis and who has not reached sero-negativity within a year should have a spinal fluid examination. Probably, a minimum effective treatment schedule for central nervous system syphilis is similar to treatment plan I, except that the penicillin should be given for at least 100 doses.

SUMMARY

Although we still do not know the optimum dosage, time interval between doses or total dose of penicillin to achieve the best results in the treatment of early, prenatal, or central nervous system syphilis, its low toxicity, ease of administration, and therapeutic effectiveness warrant its place at the top of any therapeutic program.

Penicillin should be given in early syphilis in amounts of at least 2.4 million units in 7½ days and the time interval between injections should be no longer than 3 hours, around the clock.

Combinations of penicillin and oxyphenarsine, bismuth, or both may be better than penicillin alone in early syphilis, but the evidence is not yet available that this is true.

In central nervous system syphilis penicillin should be given in amounts of at least 4 million units in 12.5 days. Repeated courses of the same amount may be necessary.

REFERENCES

1. Mahoney, John F.; Arnold, R. C., and Harris, A. D.: American Jr. Pub. Health. 33:1387, 1943.

2. Nelson, Russell A., and Duncan, LeRoy: Am. Jr. Syphilis, Gonor. and Ven. Dis. 29:1, 1945.

3. Moore, Joseph E.; Mahoney, J. F.; Schwartz, Walter; Sternberg, Thomas, and Wood, W. Barry, Jr.: J.A.M.A. 126:67, 1944.

4. Pillsbury, D. M.; Courville, C. J.; Crede, R. H.; Myers, J. D., and Wise, C. R.: British J. Ven. Dis. 20:154, 1944.

5. Pillsbury, D. M.: Am. Jr. Syph., Gonor., and Ven. Dis. 30:134, 1946.

6. Schoch, Arthur G., and Alexander, Lee J.: J.A.M.A. 130:696, 1946.

7. Platon, R. V.; Hill, A. J.; Ingraham, N. R.; Goodwin, N. S.; Wilkinson, E. C., and Hansen, A. E.: J.A.M.A. 127:582, 1945.

8. Ingraham, Norman R., Jr.; Stokes, John H.; Beerman, Herman; Lentz, John W., and Wammock, Virgene, S.: J.A.M.A. 130:683, 1946.

9. Goodwin, Mary S., and Moore, Joseph E.: J.A.M.A. 130:688, 1946.

10. Stokes, John H.; Sternberg, Thomas H.; Schwartz, Walter H.; Mahoney, John F.; Moore, J. E., and Wood, W. Barry, Jr.: J.A.M.A. 126:73, 1944.

11. Goldman, Douglas: J.A.M.A. 128:274, 1945.

12. Gammon, G. D.; Stokes, J. H.; Beerman, Herman; Ingraham, N. R., Jr.; Leng, J. W.; Morgan, H. G.; Steele, Willard; Rose, Elizabeth K., and Mayer, Verna: J.A.M.A. 128:653, 1945.

13. Rose, A. S.: Coun. Med. Jr. 9:522, 1945.

14. Thrasher, J. R.: J. Ind. M. A. 38:216, 1945.

15. Rose, A. S.; Trevett, L. D.; Hurdle, J. A.; Prout, Curtis, and Solomon, H. C.: Am. Jr. Syph., Gonor. and Ven. Dis. 29:487, 1945.

16. O'Leary, Paul A.; Brunsting, L. A., and Ockuly, O.: J.A.M.A. 130:696, 1946.

17. Thomas, Evan: Quoted by Schoch, Arther G.: J.A.M.A. 130:696, 1946.

18. U.S.P.H.S.: Rapid Treatment Center Plan.

19. Stokes, J. N.; Beerman, Herman, and Ingraham, Norman R.: Modern Clinical Syphilology. W. B. Saunders Co., Third Edition. 1256.

20. Mahoney, John F.: In DO (above), 1248.

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PENICILLIN EFFECTIVE AGAINST ACUTE SKIN DISEASE CAUSED BY ANIMALS

Penicillin has come to the aid of workers whose occupations bring them in contact with animal hides or other animal products. This antibiotic drug has been found effective in the treatment of a burrowing infectious disease of the skin known as anthrax, according to an article appearing in the August 3 issue of The Journal of the American Medical Association.

The authors are Major Harold V. Ellingson, Medical Corps, U. S. Army, Capt. Paul J. Kadull, Capt. Henry L. Bookwalter, Medical Corps, Army of the United States and Lieut. Calderon Howe, Medical Corps, U. S. Naval Reserve, Station Hospital, Camp Detrick, Frederick, Md.

The anthrax bacillus is transmitted to man through contact with diseased animals or infected animal products. Anthrax is characterized by a gangrenous carbuncle-like lesion surrounded by swelling and an abnormal accumulation of water in the tissues. The disease is always serious.

Reporting on 25 cases, the authors say that in several patients the infection occurred at sites of previous wounds. One of these lesions appeared at the site of a cigaret burn on the face, two developed at sites of abrasions on the fingers and one occurred in a hangnail. Among the remaining 20 patients several believed that they had had ordinary pimples at the sites where anthrax lesions later appeared.

The first evidence of infection is the appearance of a small red spot on the skin accompanied by intense itching. The spot grows within a few hours into a sac containing fluid. This sac may rupture early, leaving a small ulcer, or may enlarge by direct extension or by development of a ring of such sacs. Within two to six days after onset, the sac ruptures and begins to dry and the swelling recedes. In drying, a tough black crust is formed which is characteristic of this infection. This can usually be removed easily in 10 to 14 days after onset but is sometimes firmly embedded and may persist for long periods, finally leaving a punched-out ulcer which slowly fills with new skin tissue.

Treatment was begun as soon as diagnosis was made, the article states. All patients were treated with penicillin in total dosages from approximately 1,000,000 units to over 4,000,000 units. The authors find it significant that in 22 of these cases the anthrax bacilli disappeared from the lesions in 24 hours or less.

Although the lesions passed through the different stages of the disease after treatment, all patients recovered uneventfully; therefore, the authors believe that "penicillin may have modified the course of these infections and that this therapeutic agent deserves further clinical trial in the treatment of cutaneous anthrax."

Progress in the Elimination of Permanent Colostomies in Carcinoma of the Rectum and Rectosigmoid*

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For over 150 years, colostomy has been an operation for colorectal obstruction in the adult and for imperforate anus in the infant. About 120 years ago, in 1826, Lisfranc(19) first extirpated a cancer of the lower rectum by means of a posterior approach and without colostomy. He concluded that excision should be done only when the index finger could go beyond the upper limits of the tumor and that the perirectal tissues must be free so the rectum could be lowered to the skin.

During the next 50 years, the operation for excision of carcinoma of the rectum and rectosigmoid made slow progress. About 1875, the names of Verneuil(30), Kocher(17), Kraske(18), and Hochenegg(15) began to appear in the literature. All of these early attempts at extirpation of carcinoma of this region were by the posterior approach and had the objective of local excision of the tumor and preservation of the anal sphincter mechanism. Numerous modifications of the details of the technic which offered better access to the tumor area and assurance of a better anastomosis appeared during the next 25 years. During these years, the operation for complete excision of the sphincter mechanism along with the rectal tumor was also frequently done when the tumor encroached upon the anal sphincter. When it was necessary to remove the sphincter area, frequently attempts were made to construct a fecal control substitute such as twisting the distal bowel segment or pulling the end of the bowel through the gluteus maximus muscle or attempting to save the fibers of the external sphincter muscle to which the upper bowel segment could be sutured. The morbidity and mortality were exceedingly high but definite progress in lowering these factors took place as the general field of surgery developed. The principle of the Kraske method was to make direct anastomosis of the rectum or rectosigmoid to the lower rectal stump while the Hochenegg principle was to pull the proximal segment down through the distal segment and anal sphincter and suture it in this position.

Schede(28), in 1887, was the first to actually do a preliminary colostomy before excising the tumor posteriorly and establishing bowel continuity. In spite of the fact that this procedure would create a cleaner field for the posterior excision and serve as a decompressive measure, the operation did not become popular because of the exceedingly high mortality which accompanied closure of the colostomy. At this time, colostomy closure was accomplished by excising the colostomized segment and anastomosing the bowel ends.

In 1892, Maunsell(21) presented his method of an abdominal approach to loosen attachments of the rectosigmoid and rectum. By means of a loop of tape and a long director needle passed through the rectal wall and out through the anus, the tumor was pulled down, everted, resected and anastomosis completed from below. This may be considered the introduction to the combined abdominoperineal operation and was an attempt to preserve the sphincter mechanism.

Quenu(26), in 1897, made a circular incision at the anal margin and dissected upward inside of the sphincter muscles for a distance of about ¼ inch. This cylinder of bowel was then ligated with a heavy ligature which served for traction. The external sphincter was incised anteriorly and posteriorly in the midline, the rectum dissected free, tumor area resected and the upper segment sutured to the skin at the external sphincter level.

In 1908, Lockhart-Mummery(20) described his technic for anastomosing the lower sigmoid to the rectum by fixing a rubber tube into the open proximal end of the resected sigmoid and bringing it out through the anus. As the tube was drawn out through the anus, the upper segment was invaginated into the lower segment and fixed by a few sutures. Later, Balfour(5) reported upon his experience with anastomosis over a rubber tube in lesions of the lower sigmoid.

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*Read before the Annual Session of Nebraska State Medical Association, Lincoln, May 9, 1946.

Some of these attempts at sphincter preservation were successful but many others were complicated by infection. The percentage of recurrences with the posterior approach was exceedingly high because of inadequate extirpation of the glands and surrounding tissue but there was a definite lowering of recurrence figures with improvements in technic and as the knowledge of spread and growth of malignancy increased.

In 1908, Miles(22) modified the entire objective for operation on cancer of the rectum and rectosigmoid by minimizing the necessity for the sphincter mechanism and emphasizing the desirability for radical removal of all contiguous tissue and lymphatics including the anal sphincters. Based on a study of the lymphatics of the rectum and rectosigmoid by Poirier, Cuneo and Delamere(25), he contended that cancer of this region extends in three directions — upward, laterally and downward. He presented studies to prove that a wide extirpation of the bowel and associated lymphatic structures could greatly reduce the possibility of recurrence. This presentation aroused enthusiasm for a bolder eradication of the disease and propaganda about the compatibility of the abdominal colostomy with routine activities of a social, business or athletic nature. Gradually, the operation of abdominal colostomy with extirpation of sigmoid, rectum and anus in one or two stages became the accepted procedure and so continues today, because it does adhere to the established principle of wide local excision and areas of possible lymphatic spread. Time and experience have proven that the highest percentage of cures have followed this procedure. However, during the last 35 years that this operation has become so widely accepted, there have been sporadic attempts to develop operative procedures which would answer necessary wide excision but yet preserve anal continence. This has been particularly advocated where the lesion was situated in the lower sigmoid or the rectosigmoid junction.

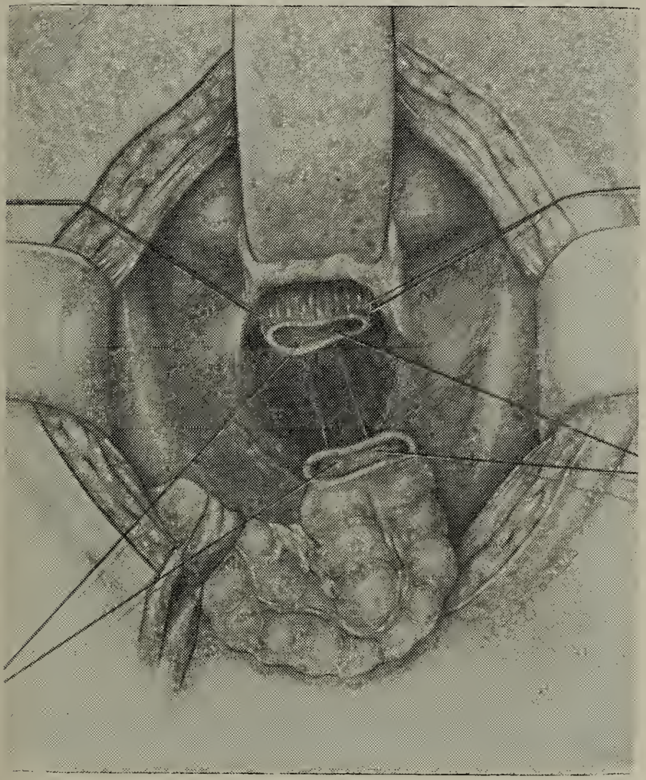

Fig. 1. Rectum amputated between right angle clamps and tumor resected. Lower rectal stump steadied by long sutures. Anastomosis initiated by two long catgut guy sutures sliding upper segment onto rectum. Ligature knots on mucosal side.

During these same years, radium and radon therapy for cancer of the rectum have had their advocates and trials. The final results have not been encouraging and colostomy has not always been avoided in such instances. In some cases, definite cure has taken place and colostomy has been avoided. If there had been a high incidence of cures, without complications and without the necessity for colostomy, this would have become the accepted method of treatment. Coagulation of the tumor has given a few cures

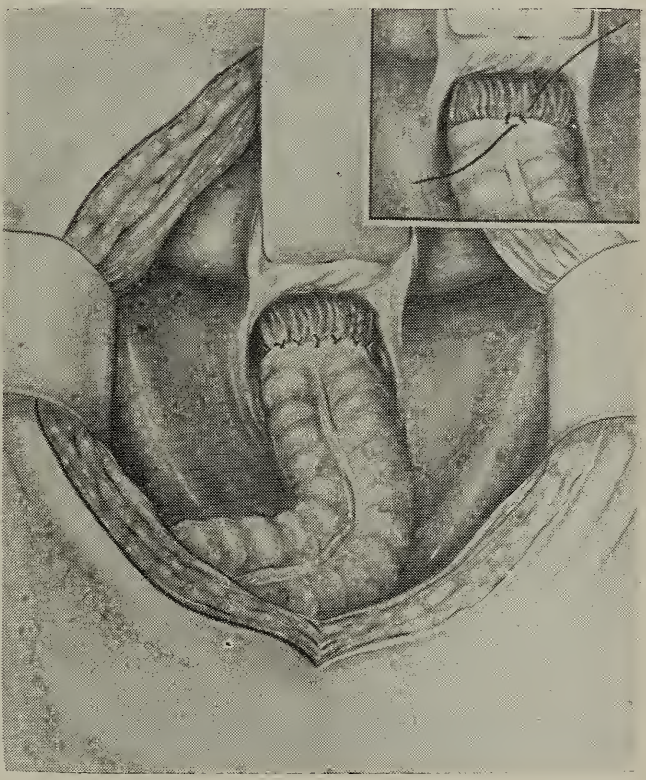

Fig. 2. Anastomosis completed by single row of interrupted silk mattress sutures. Peritoneal floor is established above the suture line. Pararectal space is drained posteriorly.

without the necessity for colostomy, but this is far from a dependable method for routine management of this disease. However, both these methods are indicated in selected cases and may well serve the purpose, and they should be in the armamentarium of one treating this type of malignancy.

Babcock(3), in 1932, further advocated radical proctosigmoidectomy but emphasized the desirability of a perineal colostomy. Later this operation was modified and the bowel terminal was implanted at the site of the unremoved anal sphincter mechanism, as in some of the earlier operations for carcinoma of the rectum.

A drive for eliminating the permanent colostomy in carcinoma of the rectosigmoid was initiated in 1935 by Devine's(8) colostomy of the transverse colon which completely defunctioned the distal colon and permitted later resection of the rectosigmoid under much more aseptic conditions.

In 1937, Horseley(16) presented his technic for resection of the rectosigmoid and upper rectum which further stimulated thought on sphincter preservation and yet he practiced necessary wide excision of the tumor and gland-bearing area. Since 1939, reports of cases with re-establishment of bowel continuity and preservation of the anal sphincter have come from Dixon(9), Dunphy(10), Arnold(2), Pannett(24), Fallis(11), Wangensteen(31), Bacon(4) and Murray (23). The individual technics, the indications for and selection of cases have varied but their writings express a desire to escape the permanent abdominal colostomy. Gradually the scope of this operation is being extended.

Can we satisfy the principles of proper radical cancer surgery in carcinoma of the rectum and rectosigmoid and still preserve the sphincter mechanism? This necessitates some modification of Miles' interpretation of the modes of spread—namely upward, laterally and downward. A challenge to Miles' teachings is supported by the study of lymphatic glands in surgically removed specimens and in autopsies by Westhuer(32), Gabriel, Dules and Bussey(12), Gilchrist and David(13) and Coller(7). These studies reveal that dissemination of cancer cells in a downward direction was unusual unless the lymphatics above the tumor were blocked by metastasis. Intramural spread of cancer cells below the lower margin of the tumor is a rarity and studies by the above-mentioned investigators suggest that a clearance of at least 1 inch (2½ cm.) and preferable 2 inches (5 cm.) is a safe margin. In tumors situated 1 to 3 inches (2½ to 7½ cm.) from the anal margin, it is believed that lateral spread over the levator muscles is a possibility and excision of this muscle and adjacent tissue is indicated.

An analysis of these lymph gland investigations certainly does not deny the complete eradication of the disease by less radical methods in selected instances. No matter how energetic we are in selling ourselves as well as the patient the acceptance of a colostomy, it remains an inconvenience, not infrequently an embarrassment, and certainly it is not desirable. Naturally we have patients with permanent colostomies who are gratified to be living and contented in their social, business and athletic activities, but they still wish for that natural commodity in the discharge of colon contents. The surgeon's first aim is to save life and permit continuance of life, but he should strive for a goal that permits the patient to have repose of mind and save those faculties to which he is accustomed.

Prior to the late months of 1942, in an attempt to eliminate the abdominal colostomy, I anastomosed the terminal ileum to the mid or lower rectum in seven patients. This operation was on the premise that retrograde spread from the rectum was minimal and infrequent and that upward spread was rather unlimited. However, a closer study of the lymphatic survey by the previously mentioned authors convinced me that it was not necessary to make such a high resection. The glands along the descending branch of the left colic artery and the highest sigmoid arteries probably only become involved by lymphatic block at the junction of the superior hemorrhoidal artery and the left colic artery. With the lack of necessity for this high resection, further attempts at ileorectostomy or ileoanastomy have not been made except in cases with multiple polyposis with rectal malignancy. Of the seven patients, four established quite satisfactory bowel habits even though the terminal ileum emptied directly into the mid or low rectum. In three cases with anastomosis to the lower rectum, there was troublesome diarrhea.

A less radical excision of the upper sigmoid permits reestablishment of bowel continuity by the abdominal route by uniting the upper sigmoid to the rectum in selected cases. At this time, we feel that this operative approach is applicable where the lower margin of the tumor is 3 inches (7½ cm.) or more above the upper margin of the anal canal. It is believed that in order to be within limits of safety, one should transect the rectum at least one inch (2½ cm.) below the lower margin of the tumor and in tumors below this level, anastomosis from within the abdomen is not desirable. If the lower margin of the lesion is less than 3 inches (7½ cm.) and more than 1½ inches (4 cm.) from the anal margin and complete abdominoperineal excision is not demanded by the extension of the disease, consideration should probably be given to two types of operation with sphincter preservation—namely abdominoperineal resection with anastomosis through a sacral-perineal incision, or posterior resection with anastomosis. The posterior approach in either of these two mentioned operations permits excision of the levator ani muscle and adjoining tissues which apparently are in the zone of lateral spread for lesions at this level. A direct posterior resection and anastomosis without abdominal section does not permit as wide a removal of the gland-bearing area in the zone of upward spread and its indications are limited. It should not be attempted unless the examining finger can reach over the upper margin of the tumor. The lesion must not be fixed to the surrounding structures and not occupy more than one-half of the rectal circumference. Preferably, the lesion should be one which is still confined to the mucosal layer and does not invade the muscular wall.

The technical difficulties encountered with abdominal resection and anastomosis are much greater than with abdominoperineal excision. These difficulties increase as the lesion approaches the mid rectum because of the depth at which one makes the anastomosis from within the abdomen.

The non-absorbable sulfonamides (sulfasuxidine or sulfathalidine) have been used in preparation for surgery in an attempt to reduce colon bacteria. An open type of anastomosis has been used because in lesions below the lower sigmoid the difficulties with closed anastomoses seem greater than the advantages, and a method has been developed which has served well.

Just before the operation is started, a large rubber catheter which has been attached to the suction machine is inserted into the rectum to make sure that it is empty. After the usual study of the vascular pattern, proper ligation of vessels to assure vascularization of the upper segment of sigmoid is made. The rectum is freed in the hollow of the sacrum and a right-angle crushing clamp is applied at least one inch below the lower margin of the tumor (Fig. 1). The resection and anastomosis is then completed as depicted in the accompanying illustrations. A rubber penrose drain is then placed in the hollow of the sacrum and the peritoneum of the pelvic floor is advanced to above the level of anastomosis. Before closure of the abdomen a Gibson type cecostomy is done through a small muscle splitting incision on the right side using a mushroom catheter. It is our observation that a patient is more comfortable with a cecostomy tube for complemental decompression than with a nasogastric or nasointestinal suction apparatus and it is probably much more efficient as regards safety in a colon anastomosis. In my experience, these cecostomies have always closed spontaneously.

The patient is then turned over on his side, a small incision is made along the coccyx through the fascia propria and the hollow of the sacrum opened. An end of the previously placed drain is then delivered. In these anastomoses, the approximation may not be as ideal as in more accessible regions of the colon but the cecostomy and the proper posterior drainage usually afford proper healing even if the site of anastomosis does not hold completely. It was clearly demonstrated in World War II that severe perforating destructive rectal injuries by shell fragments would heal kindly if a sigmoid colostomy was established and proper drainage instituted posteriorly by making a small incision along the coccyx, dividing the fascia propria and placing a drain into the perirectal space. This encourages one to feel optimistic as to eventual proper healing if a few sutures do not hold, providing one has established a decompression vent in the colon (although with cecostomy there is not complete diversion of fecal current) and has instituted drainage. Penicillin has been used postoperatively — 25,000 units every four hours for about seven days.

In the lesion lower than 3 inches (7½ cm.) from the upper anal canal margin, the abdominal part of an abdominoperineal excision is done in the usual way. After all tissues have been freed, a piece of black silk is fixed to the sigmoid as a landmark for the level of anastomosis. Closure of the pelvic floor is carried out but care is taken to make sure that the sigmoid can be drawn down through the rent in the pelvic diaphragm. Through a posterior incision, the sigmoid is pulled down and rectosigmoid and rectum with the tumor resected. The sigmoid is then anastomosed to the lower rectum or anal canal. A rubber tube 1/2 to 5/8 inch in diameter is then slipped through the anus and up beyond the line of anastomosis to serve as a splint and decompression vent. It is sutured to the skin. The perirectal space is drained. In a few selected cases, the posterior approach is made without an abdominal incision. In these posterior anastomoses, a few interrupted catgut sutures with the knots on the lumen side of the bowel are placed and then outer interrupted silk sutures complete the anastomosis.

Drainage from the perirectal site has varied. At times it is minimal in amount and at other times there is considerable drainage with a fecal odor or even fecal material. Most of these sinuses close within a few weeks.

During the last 5 months, I have seen 15 patients with carcinoma of the rectosigmoid and rectum and all but one were explored. This man had a rather large tumor fixed to the sacrum and surrounding structures as well as the infirmity of urinary incontinence secondary to a previous perineal prostatectomy. The tumor was electrocoagulated and the immediate result seems very good although recurrence is expected. Two patients were considered non-resectable at the time of exploration because of extensive invasion of surrounding structures. Of the twelve resectable patients, seven were done by abdominal resection and anastomosis, two by abdominal dissection and posterior resection and anastomosis, one by posterior resection and anastomosis, and in two patients complete abdominoperineal excision was carried out. Of these cases 83 per cent of the patients with resectable lesions were not subjected to colostomy. There was one hospital death (8.3 per cent) in a case of abdominal resection and anastomosis in a large, heavy set individual where the result would probably have been different if a combined abdominoperineal excision had been done. The mortality figures in the few small groups of cases reported are about the same as for abdominoperineal resection. However, there would seem to be a potentially higher mortality where anastomosis has been done because of the greater possibility of infection that goes with colon anastomosis. It probably can be kept under 10 per cent. In the obese and poorer risk, abdominoperineal excision or posterior excision without anastomosis would carry less hazard.

The prognosis as regards 3 and 5 year cures is difficult to evaluate accurately at this time. Based on lymphatic studies previously mentioned, one may at least anticipate results approaching the figures of the accepted radical abdominoperineal resection after the method of Miles. It will take the experience of many surgeons and numerous operations over a period of years to evaluate the less radical procedures with preservation of the anal sphincter mechanism. In the analysis and evaluation, we must also take into consideration the number of patients who seem to never accept their colostomies and appreciate their very existence. No doubt many patients with colostomies develop contentment but few express satisfaction. The individual wishes and desires should be considered, and if over a period of years we can prove that the end results reveal no greater difference in the ultimate cures than 10 per cent, consideration should be given to the operation with a smaller percentage of cures but greater satisfaction to a larger number of patients. Our present evaluation of radical operation with preservation of the sphincter mechanism is predicated on surgical results when the surgery with sphincter preservation was less radical and morbidity and mortality were high because of less fineness in judgment, technic and management, and before the advent of modern control of surgical infections.

DISCUSSION

LOUIS E. MOON, M.D. (Omaha): We, as a Society, are to be congratulated upon the presentation Dr. Best has given us; it is both timely and a subject of vital interest.

I think the doctor should stress that chemotherapy has been the thing that has brought about a change of attitude toward doing more anastomoses. The trend all over the country by men who are doing colon work and rectal work is toward saving the anus if possible, and most of it has been brought about by the introduction of sulfasuxidine and sulfathaladine and the better preparation of patients.

We must be careful, as the doctor brought out, not to err on the side of trying to save a rectum and leave tissue that we know should be taken out. We will concede that the Miles operation, as far as the highest per cent of cures is concerned, will be considered the best operation, but it does establish an artificial anus, which we wish to avoid.

In the past few years there has been considerable work done by Babcock and his associate, Bacon, on what is called the "pull through" operation, or the leaving of the anal sphincter and the bringing of the bowel down through the anal sphincter, and we who have been doing this work have all looked rather askance at this type of operation and haven't taken it very seriously. But as time goes on, we see more men attempting that type of operation and with apparent success. Babcock's figures and Bacon's figures are very glowing as to the results.

Wall has reported some very striking results at Rochester with the same type of operation.

So the desire for that type of operation is spreading over the country. We have been trying it recently and it does leave the sphincter as any anastomosis does, but it brings the proximal portion of the bowel down through the normal sphincter after the excision of the growth—and it is applicable to the same types of growths which Dr. Best has described where the growth is within four to seven centimeters of the anal margin.

It consists essentially in disecting the mucosa from inside of the sphincter and then pulling the bowel down after you have freed it from above just as you would do in any ordinary abdominoperineal operation, so the excision of all the glands in the mesentery has taken place but you do leave the levators and the sphincter and if the growth should be too close to the sphincter, you might leave tissue which would recur.

We have tried this procedure with satisfactory results in four cases recently, but we can't, just as Doctor Best said, tell what will happen; they are all too recent to give any ideas as to what the end results will be, although Bacon and Babcock and Wall have been reporting good results over a number of years.

There are certain types of individuals—big, heavy, fat individuals with small pelves—on whom you are not able to do an anastomosis, you are not able to bring down the bowel through the muscle, and it is absolutely necessary to have an artificial anus, but as we do more of these, I think we will learn to overcome some of the difficulty we find in bringing and making these anastomoses and in bringing down the bowel in the "pull through" operation.

So we should have at our command all the methods possible to save the anus—anastomosis first and then the "pull through" type of operation which Babcock and Bacon have described.

I think we are fortunate again to have Dr. Best bring this before us, because it is a timely subject and the presentation has been very excellent.

BIBLIOGRAPHY

1. Allingham, W.: Diagnosis and Treatment of Diseases of the Rectum. 5th Ed. J. A. Churchill, London, 1888.
2. Arnold, H. R. and Shea, J. H.: Resection of the Carcinomatous Rectosigmoid Juncture with Establishment of Intestinal Continuity. Arch. Surg., 41:110-113, 1940.
3. Babcock, W. W.: One Stage Simplified Proctosigmoidectomy with Formation of Perineal Anus. Surg. Clinics of North America, 12:1397, 1932.
4. Bacon, Harry E.: Evolution of Sphincter Muscle Preservation and Re-establishment of Continuity in the Operative Treatment of Rectal and Sigmoidal Cancer. Surg. Gynec. & Obst., 81:113-127, 1945.
5. Balfour, D. C.: A Method of Anastomosis Between Sigmoid and Rectum. Ann. Surg.,51:239, 1910.
6. Cadol, Armand.: Histologie Pathologique et Traitement du Cancer du Rectum. Arch. Gen. de Med., 1:571-605, May, 1898.
7. Coller, F. A.; Kay, E. B., and McIntyre, R. S.: Regional Lymphatic Metastasis of Ca of the Rectum. Surgery, 8:294, 1940.
8. Devine, H. B.: Carcinoma of Colon. Brit. M. J., 2:1245, 1935.
9. Dixon, C. F.: Anterior Resection for Carcinoma Low in the Sigmoid and the Rectosigmoid. Surgery, 15:367, 1944.
10. Dunphy, J. E.: Anterior Resection for Cancer of the Rectosigmoid. Arch. Surg., 43:1076, 1940.
11. Fallis, L. S.: Anterior Resection of the Rectosigmoid and Upper Rectum with Re-establishment of Continuity. Surgery, 14:307, 1943.
12. Gabriel, W. B.; Dukes, C., and Bussey, H. J. R.: Lymphatic Spread in Cancer of the Rectum. Brit. J. Surg., 23:395, 1935.
13. Gilchrist, R. K., and David V. C.: Lymphatic Spread of Ca of Rectum. Ann. Surg., 108:621, 1938.
14. Grinnell, R. S.: The Lymphatic and Venous Spread of Carcinoma of the Rectum. Ann. Surg., 116:200-216, 1942.
15. Hochenegg, J.: Beitrage zur Chirurgie des Rectum und der Beckenorgane. Wien. klin. Wchnschr., 2:515, 1889.
16. Horsley, J. S.: Resection of the Rectosigmoid and Upper Rectum for Cancer with End to End Union. Surg., Gynec. & Obst., 64:313, 1937.
17. Kocher, T.: Die Extirpatio recti nach vorheriger Excision des Steissbeins. Central bl. f. Chir., Leipz., 1:145-147, 1874.
18. Kraske, P.: Zur Extirpation hochsitzenden Mastdarmkrebs. Verh. d. Deut. Ges. f. Chir., 14:464, 1885
19. Lisfranc, J.: Rev. Med. de Franc. et Etrang. Paris 2:389-384, 1826.
20. Lockhart-Mummery, J. P.: A New Method of Restoring the Continuity of the Bowel in Cases of Excision of a Growth Low Down in the Sigmoid Flexure. Lancet, 1:1402-1512, 1908.
21. Maunsell, H. W.: A New Method of Excising the Two Upper Portions of the Rectum and the Lower Segment of the Sigmoid Flexure of the Colon. Lancet, 2:473, 1892.
22. Miles, W. Ernest: A Method of Performing Abdominoperineal Excision for Carcinoma of the Rectum and of the Terminal Portion of the Pelvic Colon. Lancet, 2:1812, 1908.
23. Murray, Gordon: Resection of the Rectum with Reconstruction of Canal Through the Perineal Approach. Surg., Gynec. & Obst., 82: 283-289, 1946.
24. Pannett, C. A.: Carcinoma of the Rectum (Excision with Preservation of the Sphincters). M. Press., 209:244, 1943.
25. Poirier, P.; Cuneo, and Delamere, G.: The Lymphatics. Keener & Co., Chicago, 1904.
26. Quenu, E.: Technique operatoire pour l'amputation du rectum cancereux. Bull. et. mem. Soc. de chir. de Paris, 23:163-173, 1897.
27. Rankin, F. W.: How Surgery of the Colon and Rectum Developed. Surg., Gynec. & Obst., 64:705-710, 1937.
28. Shede: Zur Operation des Mastdarmkrebses. Deutsche Med. Woch. Leipzig, S1048, 1887.
29. Tuttle, James P.: Diseases of the Anus, Rectum and Pelvic Colon. D. Appleton & Co., New York, 1902.
30. Verneuil, A.: Semaine med., 12:146, 1873.
31. Wangensteen, O. H.: Primary Resection of Rectal Ampulla for Malignancy with Preservation of Sphincteric Function. Surg., Gynec. & Obst., 81:1-23, 1945.
32. Westhuer, H.: Die Pathologish-anatomischen Grundlagen der Chirurgie des Rectum Karzinomas. Leipzig, G. Thieme, 1934.

"FAMOUS T-B'S"

Some of the most outstanding people in history at one time or other in their lives were afflicted with tuberculosis. Among the "Famous T-B's," according to the State Tuberculosis Sanatorium in Texas, and the Essex Mountain Sanatorium, Verona, N. J., are such well-known persons as: Tolstoy, Stalin, Harold Stassen, Edouard Herriot, Dr. Normal Bethune, Pope Pius XII, Rosetti, Casanova, Somerset Maugham, Noel Coward, Al Jolson, Anna Pavlova, Mozart, Grieg, Alexander Graham Bell, Mme. Curie, Debussy, H. G. Wells, Dr. Paul Ehrlich, Paul Dunbar, Henry Morgenthau, Jr., Ring Lardner, Charles Wakefield Cadman, Ralph Waldo Emerson, Jay Gould, John N. Garner, Heinrich Heine, Simon Bolivar, Mohandas K. Gandhi, Anton Checkhov, Napoleon, Eugene O'Neill, Paganini, U. S. Grant, Maxim Gorky, Roger W. Babson, Cecil Rhodes, Thoreau, Dostoievsky, Andrew Jackson, Elizabeth Browning, Balzac, Von Weber, Moliere, Shelley, Schiller, Washington Irving, Keats, Artemus Ward, Robert L. Stevenson and Frederic Chopin.

The Cancer Control Program*

JAMES F. KELLY, M.D.
Omaha, Nebraska

The Cancer Program is first under national leadership. The American Cancer Society is the leader and is responsible for the intense interest in cancer. The Society consists of a combination of physicians and laymen, and their policies are fully approved by the American Medical Association.

In Nebraska we have the Nebraska Division of the American Cancer Society. This too, like the National Society, is a combination of physicians and laymen, and their policy is to conform their activities to the desires of the regular medical profession; the Executive Committee is composed mainly of members of our State organization. In addition we have the Cancer Committee of the State Association and the newly-organized Nebraska Cancer Educational and Research Society.

Obviously the program of education which the medical profession desires and must have cannot possibly be carried on by three members of the Cancer Committee, so the House of Delegates authorized last year the organization of this Cancer Research and Educational Society within the regular medical organization and this group will supervise the program very thoroughly for both the doctors and laymen.

The Nebraska Division of the American Cancer Society will finance and direct the annual campaign on cancer problems for the laymen, and the Nebraska Cancer Educational and Research Society will have an all year program of educaton for the laymen and the medical profession, and will cooperate with the Nebraska Division of the American Cancer Society during the month of April each year by furnishing speakers for addresses to the laymen during that month.

Dr. Edward W. Rowe of Lincoln, Nebraska, the president, has been engaged in the organizational activity. Because of inability to obtain the equipment which was desired to conduct the meetings, the Doctor was not supplied with the program which we hope to be able to offer this coming year. However, with the country still in its unsettled state, it is almost impossible to make definite promises when equipment or personnel can be secured for our work, but our plans do call for special equipment and trained personnel and this money which belongs to the people of Nebraska will not be spent until it can bring the benefits for which it was collected.

With the increased activity of the American Cancer Society and its increased income in collection from the public, sixty per cent of which is left within our State for financing various phases of the cancer program, it was obvious that the organization of a broad group such as the Nebraska Cancer Research and Educational Society was necessary to reach all parts of the State so that the benefits of this money could be returned to the people of the State who contributed the money.

Dr. John R. Schenken, Pathologist at the Methodist Hospital in Omaha, is Chairman of the Program Committee of the Nebraska Cancer Research and Educational Society and I am sure that Dr. Schenken's knowledge of cancer and his experience in educational matters will be of great benefit to our State. You need only write to Dr. Schenken concerning your problem on cancer whether it is an address for laymen or a medical meeting, and I am sure he will be able to help you.

During this present cancer drive it is only proper that the joint responsibility of the medical profession and the laymen must be re-emphasized. Cancer, as we all know, is a very complex disease. The doctor is responsible in that he must have the latest information on the prevention, diagnosis and treatment that is obtainable and practical in his field. The layman's responsibility lies in the fact that he must appear for examination and treatment with the first signs of the disease if he is to be cured.

In order to accomplish this he must be aware of some of the early obvious signs of the more common types of cancer such as a persistent sore on the lip, a lump in the breast, coughing of blood, persistent indigestion in one who has previously had no stomach trouble, hoarseness of a month's duration in one who apparently has no acute cold, or the passage of blood in the stool. All such signs may mean cancer and they are signs which a layman can recognize as abnormal. The layman should know these and similar signs so that he may come to the doctor with cancer in the early stages.

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*Read before the Annual Sessions of the Nebraska State Medical Association in Lincoln, May 6, 1946.

With a program of lay education and the cooperation of the leading educated laymen of the country, the National Tuberculosis Association, using the home doctors in the various communities of the nation, made an almost unbelievable record in reducing mortality by controlling tuberculosis. The same can be done for cancer. The importance of these common signs in lay education cannot be overemphasized but the necessity for the cooperation of the layman is a thing that we must stress. This program belongs to the medical profession. What is right and what is wrong in medicine is a matter for the doctors to decide.

The Nebraska State Medical Association many years ago got firmly behind this program and there is no reason why we cannot get lay cooperation in Nebraska. Through a combined program of medical and lay education with each group recognizing its responsibility, success is certain. But if either group lags, then the program will be damaged in proportion to the lack of cooperation.

The Nebraska State Medical Association has been expanding its structure to meet its obligation in this cancer program for the past ten years and it is now organized, if funds are available, to carry the cancer program into every community in the State.

The importance of this cancer program cannot be minimized. The possibilities for good are too great. Much has been accomplished but the educational possibilities in this program have not been so widespread in the past as we hope to make them in the future.

The organization of the Nebraska Cancer Research and Educational Society from the membership of the Nebraska State Medical Association to more fully cooperate with the American Cancer Society makes Nebraska especially fortunate in that the educational program will be widespread throughout the State.

If funds are available this year, it is hoped to place a full time physician in the field to lecture to the students in school and to the laymen on the common early signs of cancer. It is hoped that this drive does impress upon everyone,— the doctors to educate and the laymen to cooperate,— so that cancer mortality may be reduced in Nebraska.

As Chairman of the Cancer Committee I wish to thank,— for the Cancer Committee and this means the Nebraska State Medical Association as a whole,— the many who have cooperated in our program this year and I am sure that next year this cooperation will be even more complete than it has been this year because the Nebraska Cancer Education and Research Society will have had time to put its organization into high gear.

Dr. George Covey, Co-Chairman of the Program Committee of the Nebraska Cancer Research and Educational Society, will now say a few words on their plans for the coming year. Dr. Covey needs no introduction.

DR. GEORGE COVEY, (Lincoln): I wish that Dr. Schenken had not been called back to Omaha. He is the Chairman of this Committee. He is the gentleman who had plans that many of you have not yet learned, and it would be nice if you could listen to him rather than to me this morning.

Our Program Committee has not yet laid out a complete program because our society is new, we were only organized in February and we had immediately before us the Cancer Month of April that seemed to be the immediate problem.

As you have understood from Dr. Kelly, the Nebraska Cancer Educational and Research Society is a sort of a link between the work that has been done for the laity by the American Cancer Society and our profession in the State of Nebraska, and it is a society to which you all potentially belong.

The program that we intend to lay out will be divided, of course, between a lay educational program and a program designed to keep the profession constantly aware of all that is going on in the field of cancer research. All the new information will be given to the society through various sources as rapidly as our society can manage it. Exact details of this work have not as yet been worked out, as I said before.

The program to control cancer in the past has been pretty much a one-month-out-of-the-year proposition. It happens now to be the month of April, and during the interval there has constantly been a let-down so that the public was stimulated for a short time and then dropped it until the next April. Now we hope our program can be an all-year-around program so that you men may expect that from time to time throughout the whole year you may be called upon to do something in this cancer program.

In addition to the educational part of this program that we have mentioned,— education to the public and refreshers to the profession,— there is the research element. Whether or not much cancer research can be carried on in Nebraska in our schools is a problem we have not yet tackled but it is perfectly possible that something may be done along that line in the future.

This is a long-term program; it can't all be worked out at once.

Now it is our plan that our contact with the profession in Nebraska shall be through our Councilor Districts and it will please us highly if, in each Councilor District, someone,— preferably the Councilor or someone he may appoint,— would take it upon himself to respond promptly when called upon to do any part in this work.

We don't know yet all the tools that will be placed in our hands to use, but Dr. Kelly handed me this morning a Speakers' Handbook. These Speakers' Handbooks are designed to put into the hands of the prospective speaker a resume of the subject he is going to discuss. This can be expanded, can be used as a guide, it would be a great help to any man going out to speak on cancer, especially to the layman, to have in his hands one of these Handbooks.

It will be the object of our committee to have on hand and to put in your hands as needed and as rapidly as possible every aid in carrying on this program. We hope to have as complete as possible cooperation throughout our society in Nebraska; that is, the State Medical Association.

DR. KELLY: All members of the State Medical Association are considered members of the Nebraska Cancer Educational and Research program and those who are interested in making addresses to the laymen during Cancer Month should signify this willingness by dropping a note to Dr. Ed Rowe of Lincoln, President of the Nebraska Cancer Educational and Research Society, who will see that it reaches the proper committee.

I believe I have brought out the essentials in the basic organizational set-up for the control of the cancer program in Nebraska.

CHAIRMAN WYCOFF: I am sure that we as members of the Society owe and are going to owe to the members of the Cancer Committee a great debt of gratitude for the program that they are planning for us, and we thank them for this beginning that has been made.

* * *

PRESERVE NIGHT VISION BY PROTECTING EYES FROM ULTRAVIOLET LIGHT

"Experiments with baby chicks reveal that exposing eyes to high intensities of invisible ultraviolet light ranging from 300 to 365 millimicrons in wavelength—a range previously considered harmless by some authorities—delays dark adaptation and impairs visual functions even though no obvious pathological changes in the eyes can be observed," according to an article appearing in the current issue of Hygeia, health magazine of the American Medical Association.

The author, E. D. Tillyer, Sc.D., is research director of the American Optical Company and is also the inventor of the ultraviolet absorbing glass used in the manufacturing of welding and sun glass lenses.

Reviewing the work of Dr. Ernst Wolf of the Harvard Biological Laboratories, who conducted the research under the sponsorship of the American Optical Company, the author states that "as human eyes could not be utilized because of the potential danger, the Harvard biologist selected baby chicks for the testing purposes as the visual characteristics of their eyes approximate closely those of a human being."

Dr. Wolf recommends, in view of his findings on ultraviolet light, that "in order to preserve efficient night vision protective lenses excluding these dangerous rays should be worn by welders and their helpers, skiers, fliers, sun bathers and others exposed to high intensities of these radiations."

The author explains that light rays can be accurately measured by means of complicated laboratory devices. Visible light rays, for example, range in length from about 400 to 750 millimicrons. The invisible ultraviolet region starts below 400 millimicrons and includes shorter waves until air absorbs them around 190 millimicrons.

In the past it has been recognized that the excessive ultraviolet rays encountered in welding operations, in the arctic regions or at the seashore may cause eye damage ranging from slight irritations to severe burns.

The article points out that the "welding arc emits ultraviolet rays ranging from 190 millimicrons to the visible region. At the beach the rays extend from about 290 millimicrons up to the visible, depending on the atmospheric conditions. However, wavelengths producing easily observable pathological conditions in the chicks' eyes are those shorter than 300 millimicrons."

Proceedings of the Staff, Nebraska Methodist Hospital*

JOHN R. SCHENKEN, M.D., Editor

III. Congenital Atresia of the Bile Ducts, by Dr. Clyde Moore:

(Clinical History and Discussion). The case I have to report is an average one. The child was seen at the office on November 10, 1944, when it was ten weeks of age. The history was as follows: He was delivered normally and weighed 8 pounds and 12 ounces at birth. He was the third child. Dark skin was noticed at birth. There were definite signs of jaundice when the child was about two weeks of age. This jaundice gradually increased in intensity. The urine was dark from birth; the bowel movements variable in color, sometimes clay colored, sometimes with a yellowish tinge. The baby apparently was comfortable but did not gain normally. When I saw him he was 22⅝ inches in length and weighed 10 pounds and 7 ounces. He should at that age have weighed about 11 pounds and 10 ounces, according to his birth weight. The skin and conjunctivae were very yellow, the spleen was 2 to 3 cm. below the costal margin and the liver 4 to 5 cm. below the costal margin. There was a moderate degree of malnutrition. The child was put on a skimmed milk formula to be observed over a short period of time. On November 29 the child was brought in again and at that time weighed 10 pounds and 10 ounces, a gain of 3 ounces in two weeks. The condition was about the same. He seemed to have a little less jaundice according to the mother although he was copper colored. On December 13, 1944, at the age of three months, he weighed 11 pounds and 5 ounces and the jaundice was about the same. The liver was 2½ inches, and the spleen about 1 inch below the costal margin. The bowel movements were yellow at times, the urine not so dark, and the general appearance of the baby seemed better. At that time we hoped from the fact that the baby did seem to improve for a while that possibly we had one of these cases of mucous plugs. A surgeon was consulted and we felt that we were justified in waiting a little longer since the child seemed to be in a fair nutritional condition and had shown some improvement. About December 27 he was brought in and at that time weighed 11 pounds and 12 ounces. The jaundice was quite intense and for some reason he had a left facial paralysis. The liver was 2½ to 2¾ inches below the costal margin and the stool was constipated and white. At this time he had a marked conjunctival irritation which cleared up with vitamin A. On January 10, 1945 he weighed 13 pounds, the liver was about 3½ inches below the costal margin and was very firm. Exploratory operation was advised at this time.

On February 13, 1945 Dr. Herbert Davis performed an exploratory operation at the Immanuel Hospital. His report was as follows: "A right rectus splitting incision was made. The liver had marked biliary cirrhosis and extended about 5 cm. below the right costal margin and was very hard. There was marked jaundice. The gall-bladder was very atrophic, measuring two mm. x 5 mm. in size. The cystic duct was very small. I followed it up about 2 cm., then could not follow it further. The hepatic and common ducts were completely absent. I explored this area extremely carefully, opening up the peritoneum and using an aspirating syringe in 15 places or so at the hilus of the liver hoping to find the dilated duct just within that structure but to no avail. The portal vein and the hepatic artery were exposed in thoroughly exploring the area of the bile duct Thinking that there might possibly be a little connection of the cystic duct with the biliary ducts, I placed a small catheter in the fundus of the gall-bladder and brought it out the wound. The remainder of the wound was closed."

Following the operation the baby continued to progress about as it had been. The liver and spleen were enlarged, the liver soon reaching down into the pelvic brim. It was definitely hard. About four months before death the liver began to get much smaller and abdominal fluid made its appearance. At one time the abdomen became so large the baby was sent to the hospital for abdominal paracentesis but the fluid gradually went down, the child was comfortable and we left it alone. Just before death the baby showed evidence of circulatory failure, moist rales in the chest, some slight cough, some difficulty in breathing, and vomited a large amount of black blood.

Although congenital obliteration of the extrahepatic bile ducts is not rare, it is not very common. I should say from my own experience that it is not nearly as common as congenital heart disease, cleft palate or hare-lip. I believe I have seen about eight cases through the years. There are two types of congenital obliteration of the extrahepatic bile ducts: one in which there is an organic obliteration of the bile duct, and a small group in which there is probably a simple blockage from mucous plugs. Cases in the latter group recover. The ducts involved are the hepatic duct, the cystic duct, the common duct or all three of them. The cause of this is not known. We know from embryology that the extrahepatic ducts are patent early in fetal life. Later on with the epithelial cells growing and blocking these ducts they are solid cords for a while. Later in embryonic life they open up. Evidently the difficulty occurs at this time. It is an arrest in development.

There are four conditions which must be differentiated. First is icterus neonatorum. That need not cause much disturbance because the jaundice disappears in about ten days and is usually not very intense. For some reason or other it seems to me that in the last ten years I have seen much less icterus neonatorum than I used to see. I do not know whether it is because of the better care obstetricians are giving the mothers before the child is born or not, but it used to be exceedingly common and now it is very uncommon except in a very mild degree. Another condition which is not easy to differentiate is icterus gravis which occurs in erythroblastosis. A third condition is congenital hemolytic anemia which sometimes also offers problems in differential diagnosis. In icterus gravis, however, and in congenital hemolytic anemia, the outstanding feature is anemia. In icterus gravis there is an Rh negative mother, an Rh positive father, as well as early manifestations of severe anemia such as erythroblasts, etc., all of which aid in the early diagnosis of the case. In congenital hemolytic anemia, there is the presenting condition, the anemia. Although jaundice is severe and increases up to a certain point, it never reaches the point that it does in the obstructive type.

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*Delivered at a joint meeting of the Nebraska Methodist Hospital staff and the Omaha-Douglas County Medical Society, February 12, 1946.

Congenital obliteration of the bile duct causes the following symptoms: jaundice, which is usually present at birth, gradually increasing in intensity and associated with a clay colored or lightly yellow tinged stool although the child may be fairly well nourished and have a normal blood picture (a direct VandenBurgh will show obstructive jaundice); and enlargement of the liver as well as gradually increased signs of portal obstruction.

DR. HERBERT DAVIS: (Discussion). The gall-bladder was very small and was difficult to find. The ducts from it just frayed out. There was no bile in the gall-bladder, just clear fluid. When you have a case in which you cannot find ducts, look for dilated ducts up in the liver. The obstruction may be any place in the common duct, the hepatic duct or in the ducts in the liver. Proximal to the obstruction you are likely to have dilated ducts. If you can get into that area and can get drainage, you have a good chance of curing the case.

Ladd, in a report of 45 cases on which he operated, stated that there were 9 (20 per cent) in which he was able to find a duct. In the others he could not and they ended up just like our case. In other words, there was an 80 per cent fatality. Of those 9, 3 were little nubbins of hepatic duct which were left up at the hilus of the liver. In those 3, he anastomosed the duct to the duodenum, doing a hepato-duodenostomy. Two had complete cures and are still well. The third died. On the other 6, in which he found that the obstruction was in the common duct with the common duct dilated proximal to the point of obstruction, he performed a choledochoduodenostomy. On one he did a cholecystoduodenostomy which is not considered as good an operation as the other. Of those 6, 4 made recoveries and 2 died. In other words, out of the 9 on which he was able to try an operation, 3 died and 6 lived. All of those 6 have been permanently cured.

A few years ago at a meeting of the American College of Surgeons in Chicago, I went out to see Dr. Strauss operate. He had one of these cases, the first one that I had ever seen. He worked for about an hour and a half but could find no duct. He put needles in the hilus of the liver and finally drew out a syringe full of bile. He made an incision about 1 or 2 cm. along the needle up into the liver to reach this duct. He placed a catheter up into the liver and made a purse-string suture drawing it down around the catheter. Then he drew the catheter down a distance of 1 or 2 cm. to the duodenum. The catheter passed through the duodenum and out through the wound, having a small opening in the side of the catheter at the point where he put it in and out the duodenum so that it could drain into the duodenum. Dr. Strauss pointed out that epithelium will usually form over this catheter and that after several months it can be withdrawn. The interesting thing about this is that five years later at a meeting of surgeons in Chicago this subject was discussed and the same girl that I had seen operated on was shown. She was as healthy and normal as any child her age.

The average duration of life without operation in these cases is five months. An occasional one will live about one year. In other words, the total permanent relief from operation is about 13 and 2/3 per cent, based on our latest statistics. Therefore, I believe that exploratory operations should be done, and, as we see more cases and learn more about locating the duct in the liver, we can gradually improve the result.

DR. JOHN R. SCHENKEN: (Postmortem Findings and Discussion). The postmortem examination revealed that the body was that of a somewhat underdeveloped, undernourished, white male child who showed a moderate degree of jaundice. There was no evidence of hemorrhage in the conjunctivae or in th skin. The peritoneal cavity contained no excess fluid. The mesenteric lymph nodes were about twice normal size and had a dark green color. Neither the pleural cavity nor the pericardial cavity contained excess fluid.

The most important findings concerned the biliary system. The liver weighed 517 Gm., which is about 160 Gm. more than it should weigh. It was dark green in color and the surface showed many small nodular protrusions. The gall-bladder lay in its normal location but consisted of a cylindrical tube measuring about 4 cm. in length and about 1 cm. in diameter. It contained a clear, watery fluid. The ampulla of Vater was easily identified. A probe was inserted into its orifice and the common bile duct was found to be patent for a distance of about .7 cm. At that point there was a complete obstruction. No fibrous cord was demonstrated beyond that point. Many adhesions were present between the surrounding structures and the hilum of the liver, no doubt due to the previous operation. After these were removed, dilated bile ducts were observed. Lateral and adjacent to the portal vein there was a greenish bulging mass measuring 2.5 cm. in diameter and protruding 3 cm. from the hilum of the liver. At the base of this mass posteriorly and to the left there were two smaller bulging masses, each of which measured about 1 to 1½ cm. in diameter. On section it was found that these masses were thick-walled bile ducts, containing a very thick, brownish black inspisated bile in which many irregular masses of black gravel were present. The larger mass represented the common bile duct and the smaller two masses the hepatic ducts on the left side.

Section through the liver parenchyma revealed that it cut with increased resistance and showed many branching strands of connective tissue throughout the liver substance. Rounded nodules of liver tissue stained a deep green were also present.

The spleen was chronically congested, weighing 103 Gm. (normal weight 30 Gm.). The gastro-intestinal tract showed red blood in the upper portion and dark altered blood in the lower. Petechiae were present in the mucous membranes but no gross evidence of the source of hemorrhage was found.

Microscopic examination of the liver revealed many rounded nodules of liver cords surrounded by a thick zone of connective tissue in which many small bile ducts were noted. Many of the liver cells showed marked degenerative changes and many bile canaliculi were filled with inspisated bile.

The histology resembled more closely the Laennec's type of portal cirrhosis associated with much bile stasis. No other histologic findings of importance were noted.

IN SUMMARY:

This is the case of a congenital atresia of the common bile duct at some point between the origin of this structure and the cystic duct. The obstruction involved the common bile duct from a point 0.7 cm. from the ampulla to a point beyond the origin of the cystic duct. As a result of the chronic bile duct obstruction there was a biliary cirrhosis and intense jaundice which in time resulted in a deficiency of absorption of vitamin K. This resulted in a prolonged prothrombin time which was responsible for the final massive hemorrhage into the gastro-intestinal tract.

Although several theories have been advanced as to the cause of the obliteration of the bile ducts, must authorities believe that congenital atresia is due to the failure of the normal process of recanalization of the ductal system. In the 5 mm. embryo the extra-hepatic bile ducts are patent. Then they are converted into solid cords and are recanalized at about the 16 mm. embryo. Should this process of recanalization fail to occur it is very easy to understand how congenital atresia occurs.

The site of the obliteration is variable. The cystic duct alone may be occluded. The common duct alone may be occluded or the hepatic duct alone may be involved. There are instances also in which there may be several areas occluded in the same patient. It is stated that the intrahepatic portions of the biliary ducts are very rarely involved. It would seem that in our patient this was the case inasmuch as no ducts could be found at the time of operation at the age of 4 months. Yet, when the patient died at the age of 18 months, protruding dilated bile ducts were found. This would indicate that the occlusion was either directly at the hilum or inside the hilum of the liver. An increase in size of both liver and spleen is commonly found and ascites is said to occur only as a terminal development in most cases. However, in our case ascites appeared and spontaneously disappeared during the course of the disease. This means that the patient must have been relieved of her portal obstruction which is difficult to explain on anatomical grounds. This case, as many others which have been reported, shows a variability in the quantity of pigment in the stool. The explanation of the appearance of bile pigment in the stools at various times during the course of the disease has been given as being due to bile excretion into the lumen of the intestines by way of the blood stream. In this case we found no evidence of any mechanical means by which bile could be excreted into the alimentary canal. As a rule, these children die of intercurrent infection, hemorrhage, or hepatic insufficiency, or a combination of these conditions. In our case, the immediate cause of death seems to have been a massive hemorrhage as a result of the vitamin K deficiency.

Prognosis in most cases is bad unless surgical intervention can re-establish continuity of the ductal system. Most infants are dead before six months although one case was reported in the literature to have lived three years and three months.

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THE PLATFORM OF THE AMERICAN MEDICAL ASSOCIATION

The American Medical Association advocates:

1. The establishment of an agency of federal government under which shall be coordinated and administered all medical and health functions of the federal government exclusive of those of the Army and Navy.
2. The allotment of such funds as the Congress may make available to any state in actual need for the prevention of disease, the promotion of health and the care of the sick on proof of such need.
3. The principle that the care of the public health and the provision of medical service to the sick is primarily a local responsibility.
4. The development of a mechanism for meeting the needs of expansion of preventive medical services with local determination of needs and local control of administration.
5. The extension of medical care for the indigent and the medically indigent with local determination of needs and local control of administration.
6. In the extension of medical services to all the people, the utmost utilization of qualified medical and hospital facilities already established.
7. The continued development of the private practice of medicine, subject to such changes as may be necessary to maintain the quality of medical services and to increase their availability.
8. Expansion of public health and medical services consistent with the American system of democracy.

ANNOUNCEMENTS

UNITED STATES NAVAL RESERVE FLIGHT SURGEON NEEDED

Stationkeeper flight surgeon—flight pay—at U. S. Naval Air Station, Olathe, Kan. For application blank apply to Lt. L. S. Hanson, 1704 Douglas Street, Omaha, Nebr., telephone Ja 7507.

NEBRASKA PHARMACEUTICAL ASSOCIATION

Reminders on Narcotics Law

Mr. A. M. Bangs, District Supervisor of the Bureau of Narcotics in Minneapolis, has approved the following information which is official, and replaces anything that may have previously been announced.

THE HARRISON ACT

An order form must accompany each transaction involving the transfer of narcotics except that doctors of medicine, who have complied with state and federal laws may write individual prescriptions for narcotics for medicinal purposes only.

The prescription must contain the patient's name, must be signed by the physician as of the day it is dated and must be on file with the dispensing pharmacist at the time of delivery. The pharmacist must keep these on file for at least two years.

Federal inspectors may examine any pharmacist at any time. If narcotics have been delivered for which no prescription is on file the pharmacist and the doctor may be charged jointly in the federal courts and both will be principals in the case.

1. Telephone Orders:

The federal law does not provide for telephone orders. Therefore, inspectors cannot declare that an emergency makes a telephone order legal.

The prescription must be filed when the patient receives the order. The delivery boy may stop to pick up the prescription when making the delivery, or if a member of the family calls for the product he may stop at the doctor's office to pick up the prescription.

Telephone orders represent a hazard to the doctor because addicts sometimes call, giving the doctor's name and obtain narcotics in this way.

2. Refills:

A prescription must accompany the refill order.

Again, the signed prescription must be in the pharmacists possession at the time delivery is made.

3. Narcotics for General Office Use:

The doctor should write an order for such narcotics.

Prescriptions are to be used for the individual patient only.

WHEN Rx IS UNNECESSARY

4. When Narcotic Prescriptions Are Not Necessary:

Prescriptions are not necessary if not more than the following amounts of narcotic per fluid ounce are contained in the preparation.

2 grains opium.
¼ grain morphine.
1 grain codeine.
⅛ grain heroin.

However, a record of these sales must also be kept for a period of two years.

ADDED NOTES

1. Narcotic prescriptions must be signed in ink or with indelible pencil.

2. Physicians dispensing narcotics must record these transactions. This applies only where narcotics are left for the patient to take—not when they are administered by the physician, such as injections, etc.

AMERICAN BOARD OF OBSTETRICS AND GYNECOLOGY

The next written examination (Part I) for all candidates will be held in various cities of the United States and Canada on Friday, February 7, 1947, at 2:00 p.m. Candidates who successfully complete the Part I examination proceed automatically to the Part II examination held later in the year. All applications must be in the office of the Secretary by November 1, 1946. Candidates in military service are requested to keep the Secretary's Office closely informed of changes in address.

A number of changes in Board regulations and requirements were put into effect at the last annual meeting of the Board held in Chicago, Illinois, from May 5 to May 11, 1946. Among these is the requirement that case records must now be forwarded to the Secretary's Office from thirty to sixty days after the candidate has received notice of his eligibility for admission to the examinations for certification. At this meeting the Board also ruled that it will not accept the nine months residency as an academic year toward years of training requirements following the termination of the official period of intern and residency acceleration, April 1, 1946.

Applications are now being received for the 1947 examinations. For further information and application blanks address Paul Titus, M.D., Secretary, 1015 Highland Building, Pittsburgh 6, Pennsylvania.

THE OMAHA MID-WEST CLINICAL SOCIETY

Fourteenth Annual Assembly

October 28, 29, 30, 31, November 1, 1946
Hotel Paxton — Omaha, Nebraska

PROGRAM

MONDAY MORNING, OCTOBER 28th

8:30 to 11:00 a.m.—Registration.

10:15 a.m.—"Curare in Acute Anterior Poliomyelitis (Motion Picture).

11:15 a.m.—"Consideration of the Local and the Systemic Conditions Causing Deafness," Samuel J. Kopetzky, M.D., New York, New York, Professor of Otology, New York Polyclinic Medical School.

12:00 Noon—"Practical Aspects of Allergy," Robert A. Cooke, M.D., New York, New York, Attending Physician and Director of Department of Allergy, Roosevelt Hospital.

12:40 p.m.—Visit the Exhibits.

1:00 p.m.—Luncheon. Questions and Answers—"The Fenestration Operation for Deafness." Leader, Samuel J. Kopetzky, M.D.

MONDAY AFTERNOON

2:30 p.m.—Clinic—"Carcinoma of the Lower Esophagus and Cardiac End of the Stomach," Dallas B. Phemister, M.D., Chicago, Illinois, Professor and Chairman of Department of Surgery, the University of Chicago.

3:30 p.m.—Clinic—"Otolaryngologic," Samuel J. Kopetzky, M.D.

4:30 p.m.—Clinic—"Asthma and Migraine," Robert A. Cooke, M.D.

5:30 p.m.—Visit the Exhibits.

6:15 p.m.—Dinner. Questions and Answers—"Bone Tumors." Leader, Dallas B. Phemister, M.D.

MONDAY EVENING

8:15 p.m.—"The Therapy of Allergic States," Robert A. Cooke, M.D.

8:45 p.m.—"Shock," Dallas B. Phemister, M.D.

9:15 p.m.—"The Modern Treatment of Otitic Infections, Acute and Chronic," (Motion Picture in Color and Sound); "The Chronically Discharging Ear," Samuel J. Kopetzky, M.D.

TUESDAY MORNING, OCTOBER 29th

8:15 a.m.—"Penicillin in Medicine and Surgery" (Motion Picture).

9:00 a.m.—"The Normal Development of Behavior Patterns" (with Motion Picture), Arnold L. Gessel, M.D., New Haven, Connecticut, Director of the Clinic of Child Development, the Yale School of Medicine.

9:40 a.m.—"Erythema Multiforme and Lupus Erythematosus," Henry E. Michelson, M.D., Minneapolis, Minnesota, Professor of Dermatology and Syphilology and Director of the Division, University of Minnesota.

10:20 a.m.—"The Gallbladder," Dallas B. Phemister, M.D.

11:00 a.m.—Visit the Exhibits.

11:15 a.m. to 12:55 p.m.—Symposia and Local Lectures—

"Syphilis"

1. "Pitfalls of Serologic Diagnosis," J. P. Tollman, M.D.
2. "Clinical Manifestations," Donald J. Wilson, M.D.
3. "Management of Early Syphilis and Syphilis of Pregnancy," O. J. Cameron, M.D.
4. "Diagnosis and Management of Latent and Active Neuro-syphilis," Paul T. Cash, M.D.

"Present Concepts of Rheumatic Fever"

1. "Clinical Diagnosis," Clyde Moore, M.D.
2. "Interpretation of Laboratory Data," Paul N. Morrow," M.D.
3. "Management and Treatment," Charles A. Tompkins, M.D.
4. "Prophylaxis," John M. Thomas, M.D.
5. "Rheumatic Fever Program — Federal and State," Joseph A. Henske, M.D.

Lectures:

"A New Uterine Packing (Hemo Pak)," H. E. Anderson, M.D.
"Hospital Pre-Delivery Care," C. F. Moon, M.D.
"Cirrhosis of the Liver and Liver Therapy," Adolph Sachs, M.D.
"X-Ray Studies in Chest Diagnosis," D. A. Dowell, M.D.

1:00 p.m.—Luncheon. Questions and Answers — "Differential Diagnosis of Mental Deficiency in Infancy." Leader, Arnold L. Gesell, M.D.

TUESDAY AFTERNOON

2:30 p.m.—"Dermatologic Clinic," Henry E. Michelson, M.D.

3:30 p.m.—Clinic—"Psychosomatic Medicine" (with Motion Picture), Francis J. Braceland, M.D., Rochester, Minnesota, Consulting Psychiatrist, Mayo Clinic.

4:30—"Clinical Studies of Abnormal Behavior" (with Motion Picture), Arnold L. Gesell, M.D.

5:30 p.m.—Visit the Exhibits.

6:15 p.m.—Dinner. Questions and Answers — "Neuroses in the General Population." Leader, Francis J. Braceland, M.D.

TUESDAY EVENING

8:15 p.m.—"The Wish to Fall Ill," Francis J. Braceland, M.D.

8:45 p.m.—"Developmental Pediatrics: A Glance Into the Future," Arnold L. Gesell, M.D.

9:15 p.m.—"The Diagnosis and Treatment of Cancer of the Skin," Henry E. Michelson, M.D.

WEDNESDAY, OCTOBER 30th

8:15 a.m.—"Curare in Acute Anterior Poliomyelitis" (Motion Picture).

9:00 a.m.—"Cancer of the Uterus—The Diagnosis and Treatment," Joe V. Meigs, M.D., Boston, Massachusetts, Clinical Professor of Gynecology, Harvard Medical School, Chief of the Vincent Memorial Hospital (the Gynecological Service of the Mass. Gen. Hosp).

9:40 a.m.—"Painful Hips in Adults; Their Prevention and Treatment," Ralph K. Ghormley, M.D., Rochester, Minnesota, Consulting Surgeon in Orthopedic Surgery, Mayo Clinic.

10:20 a.m.—"General Practitioners Approach to the Nervous Patient," Francis J. Braceland, M.D.

11:00 a.m.—Visit the Exhibits.

11:15 a.m. to 12:55 p.m.—Symposia and Local Lectures—

"Pain in the Neck and Shoulders"

1. "Psychiatric Causes of Pain in the Neck," Richard H. Young, M.D.
2. "Surgical Aspects of Intraspinal Lesions," J. Jay Keegan, M.D.
3. "Extradural Lesions Involving the Cervical Spine," Robert D. Schrock, M.D.
4. The Scalenus Anticus Syndrome and Cervical Rib," Arthur C. Johnson, M.D.
5. "The Painful Shoulder," James W. Martin, M.D.

"Blood Substitutes and Parenteral Fluids"

1. "Derivation and Their Relative Values," C. M. Wilhelmj, M.D.
2. "Their Use and Abuse In:"
   a. "Surgery," Charles W. McLaughlin, M.D.
   b. "Gynecology and Obstetrics," J. P. Redgwick, M.D.
   c. "Internal Medicine," C. Edward Thompson, M.D.
   d. "Pediatrics," Floyd Clarke, M.D.

Lectures:

"Enuresis," W. F. Novak, M.D.
"Common Affections of the Optic Nerve," C. M. Swab, M.D.
"The Elimination of a Colostomy in the Cure of Rectal Cancer," L. E. Moon, M.D.
"Recent Advances in Ophthalmology," J. H. Judd, M.D.

1:00 p.m.—Luncheon. Questions and Answers — "Ovarian Tumors, Malignant and Endocrine Types." Leader, Joe V. Meigs, M.D.

WEDNESDAY AFTERNOON

2:30 p.m.—Clinic—"Traumatic Dislocations," Ralph K. Ghormley, M.D.

3:30 p.m.—"The Relation of X-ray and Radium Therapy, and New Types of Radiation to Medicine," Kenneth D. A. Allen, M.D., Denver, Colorado, Associate Professor of Radiology, University of Colorado School of Medicine.

4:30 p.m.—"Technique of Total Hysterectomy" (with Motion Picture), Joe V. Meigs, M.D.

5:30 p.m.—Visit the Exhibits.

6:15 p.m.—Dinner. Questions and Answers—"The Abuse of Rest in Bed in Orthopedic Surgery." Leader, Ralph K. Ghormley, M.D.

WEDNESDAY EVENING

8:15 p.m.—"Some of the Findings Depicted by a Simple 'Scout' Film of the Abdomen and Its Use by the Non-Specialist," Kenneth D. A. Allen, M.D.

8:45 p.m.—"Endometriosis," Joe V. Meigs, M.D.

9:15 p.m.—"Skin Plastics of Extremities," Ralph K. Ghormley, M.D.

THURSDAY MORNING, OCTOBER 31st

8:15 a.m.—"Penicillin in Medicine and Surgery" Motion Picture).

9:00 a.m.—"The Rational Use of Pencillin," Perrin H. Long, M.D., Baltimore, Maryland, Professor of Preventive Medicine, Johns Hopkins University School of Medicine.

9:40 a.m.—"Management of Lesions of the Anal Canal," Curtice Rosser, M.D., Dallas, Texas, Professor of Proctology, Southwestern Foundation College of Medicine.

10:20 a.m.—"Radiologic Considerations of the Normal and the Tuberculous Lung," Kenneth D. A. Allen, M.D.

11:00 a.m.—Visit the Exhibits.

11:15 a.m. to 12:55 p.m.—Symposia and Local Lectures—

"New Drugs and Antibiotics"

1. "Thiouracil in the Preoperative Treatment of Hyperthyroidism," Herbert H. Davis, M.D.
2. "Demerol as an Analgesic," Ben Slutzky, M.D.
3. "Dilantin in the Treatment of Epilepsy," H. A. Wigton, M.D.
4. "Aminophylline in the Treatment of Asthma," Raymond J. Wyrens, M.D.
5. "Hytakerol in the Treatment of Hypoparathyroid Disease," Meyer Beber, M.D.
6. "The Absorbable Sponge as a Hemostatic Agent," John C. Kennedy, M.D.
7. "Benadryl in the Treatment of Allergic Conditions," M. H. Brodkey, M.D.

"Acute Abdomen"

1. "X-ray Aid in Diagnosis and Management," Clyde C. Hardy, M.D.
2. "Laboratory Aid," B. Carl Russum, M.D.
3. "When and When Not to Operate," R. Russell Best, M.D.
4. "Use of Penicillin and Sulfonamides," Lloyd O. Hoffman, M.D.
5. "Management of Unexpected Lesions Found at Operation," John W. Duncan, M.D.

Lectures:

"Nasal Physiology in Dietary Insufficiency," L. P. Coakley, M.D.

"Management of Cervico-Vaginal Disorders," J. J. Grier, M.D.

"Cesarean Section Under Local Anesthesia; A Review of 100 Cases," L. S. McGoogan, M.D.

"Headaches from Otolaryngologic Viewpoint—Origin and Mechanism," F. M. Watke, M.D.

1:00 p.m.—Luncheon. Questions and Answers — "Prophylactic and Suppressive Agents Against Infection." Leader, Perrin H. Long, M.D.

THURSDAY AFTEROON

2:30 p.m.—Clinic—"Lesions of the Right Colon," Curtice Rosser, M.D.

3:30 p.m.—"Changing Trends in Medicine," George F. Lull, M.D., Chicago, Illinois, Secretary-General Manager, American Medical Association

4:30 p.m.—"Etiology, Epidemiology, and Clinical Cause of Infectious Hepatitis," Perrin H. Long, M.D.

5:30 p.m.—Visit the Exhibits.

6:15 p.m.—Dinner. Questions and Answers — "Management of Pruritus Ani," Curtice Rosser, M.D.

THURSDAY EVENING

OMAHA-DOUGLAS COUNTY MEDICAL SOCIETY NIGHT

8:15 p.m.—"America's Responsibility for Fundamental Research," Reuben G. Gustavson, Ph.D., Lincoln, Nebraska, Chancellor, University of Nebraska.

8:45 p.m.—"Streptomycin, Its Uses and Abuses," Perrin H. Long, M.D.

9:15 p.m.—"Present Management of Diverticulitis," Curtice Rosser, M.D.

FRIDAY MORNING, NOVEMBER 1st

8:15 a.m.—"Curare in Acute Anterior Poliomyelitis" (Motion Picture).

"Changing Concepts in the Field of Endocrinology"

9:00 a.m.—"Studies on the Testes of Hypogonadal Men," Warren O. Nelson, Ph.D., Iowa City, Iowa; Professor of Anatomy, State University of Iowa College of Medicine.

9:40 a.m.—"Clinical Applications of the Male Sex Hormone," Willard O. Thompson, Chicago, Illinois; Clinical Professor of Medicine, University of Illinois College of Medicine.

10:20 a.m.—"Diagnosis and Treatment of the Diseases of the Suprarenal Cortex," Constantine F. Kemper, M.D., Denver, Colorado; Associate Professor of Medicine and Director of Metabolic Clinic, University of Colorado School of Medicine.

11:00 a.m.—Visit the Exhibits.

11:20 a.m.—"Present Limitations of Pituitary Therapy," Henry H. Turner, M.D., Oklahoma City, Oklahoma; Associate Professor of Medicine, University of Oklahoma School of Medicine.

12:00 m.—"The Use of Estrogenic and Progestational Hormones," Elmer L. Sevringhaus, M.D., Montclair, New Jersey; Consultant in Endocrinology and Metabolism; Director of Clinical Research, Hoffmann-LaRoche, Inc., Nutley, N. J.

12:40 p.m.—Discussion.

1:00 p.m.—Adjourn.

NEWS and VIEWS

Interest in the control of heart disease is currently being enhanced by the efforts of many professional and lay groups. This attention to heart ailments has long been warranted. The public is becoming more acutely aware of cardiac hygiene than ever before —a growing interest that should be cultivated and guided with judgment as well as vigor.

During the past third of a century, the improvement in mortality from heart disease was most pronounced in the younger age groups and decreased progressively with advance in age. The death rate from diseases of the heart and arteries, corrected for the ageing of the population, dropped virtually 30 percent between 1911-1915 and 1940-44, according to experience among the Industrial policyholders of the Metropolitan Iife Insurance Company. This reduction in mortality from the principal cardiovascular-renal diseases has been particularly marked among white females—37 per cent in the above-mentioned period. Among the males, the decrease in mortality, while not as marked as among the females, was 25 per cent, still a quite substantial reduction. This still leaves much to be desired in the field of early diagnosis and immediate initiation of adequate cardiac regimes in order to reduce to a minimum incapacity and mortality from these conditions. Concentration of effort must now be placed on teaching the public what is known about prevention, early recognition, and care of cardiac lesions.

In order to assist in the attainment of this goal, the Metropolitan Life Insurance Company is conducting a special campaign on heart disease during the fall and winter months. At that time, the Company's more than 20,000 Field Representatives, in cooperation with official and voluntary agencies, will reach the homes of millions of policyholders with a recently published pamphlet, "Your Heart," developed in cooperation with the American Heart Association. A lay educational film on heart disease is also being prepared. Distribution will be made to physicians of a packet in which will be included material of special interest to doctors, and a scientific exhibit on heart disease, first shown at the A.M.A. meeting in San Francisco, is available for state and local professional meetings.

As a member of a medical teaching mission to Czechoslovakia, Dr. J. E. M. Thompson, has received from the Czech government the order of the white lion in recognition of distinguished service.

Dr. Thompson, for the last months in Czechoslovakia, has participated in clinics, round table discussions and seminars, and has given lectures before medical societies. He is one of the ten specialists from the United States making up the medical mission.

The first congress of the Czechoslovakia Orthopedic association honored Dr. Thompson at a banquet in Prague. The association presented him a diploma of honorary membership.

The Charles university medal, highest award presented by the Prague university, was given to the members of the mission.

Establishment of the Dr. Charles Frank Morsman foundation at the University of Nebraska college of medicine in Omaha was announced here recently. The foundation, set up by Dr. Morsman of Hot Springs, S. D., will further the knowledge of endocrinology—the study of internal secretion of endocrine glands.

Perry W. Branch, director of the University of Nebraska foundation, said $10,000 has been given to the foundation by Dr. Morsman.

"The purposes of this gift are to enhance and disseminate knowledge in endocrinology, to train men and women to become endocrinologists, and to provide diagnosis and treatment of persons who are ill or abnormal because of disorders of endocrine glands," Branch said.

The fund, administered by the university foundation, will be used either for fellowships, a series of lectures, or the diagnosis of patients who are ill or abnormal because of disorders of the endocrine glands.

Later, if sufficient income from the Dr. Morsman foundation becomes available, a clinic will be established in the college of medicine for carrying on further study with endocrine glands.

An administrative committee composed of Dean Harold Leuth as chairman and others will direct the activities of the Dr. Morsman foundation.

MEDICAL LEADERS NAMED TO ARTHRITIS FOUNDATION'S COUNCIL

Nineteen prominent medical leaders were named recently as members of the National Medical and Scientific Advisory Council of the National Arthritis Research Foundation.

All research and medical activities of the Foundation will be under the direction of this Council. The Foundation was organized recently for the purpose of attacking the problem of the causes, cure and prevention of arthritis and those rheumatic diseases directly related to it.

A research center is to be built at Hot Springs National Park, Arkansas, national headquarters of the Foundation, to house the principal laboratories and the Foundation's own staff. In addition, grants-in-aid are to be made to various universities and other research centers to carry out correlated investigations.

The formal opening of the Foundation's campaign to raise $2,500,000 to promote its work will take place October 7th.

The names of the members of this Council follow: Dr. Guy A. Caldwell, Professor of Clinical Orthopedics, Tulane University, Louisiana School of Medicine; Dr. Paul Roberts Cannon, Chairman of the Department of Pathology, University of Chicago, School of Medicine; Dr. Albert Eugene Casey, Assistant Professor of Pathology, Medical College of Alabama; Dr. Edward Lyon Compere, Orthopedic Surgeon and Associate Professor of Orthopedics, University of Illinois, School of Medicine; Dr. Harry James Deuel, Jr., Bio-Chemist, University of Southern California, School of Medicine.

Also, Dr. Herbert McLean Evans, Professor of Anatomy and Director of the Institute of Experimental Biology, University of Chicago; Dr. Frank Wilbur Hartman, Pathologist and Director of Laboratories of Ford Hospital, Detroit; Dr. Andrew C. Ivy, Professor of Physiology and Dean, University of Illinois, College of Medicine; Dr. Howard Thomas Karsner, Professor of Pathology of Western Reserve School of Medicine; Dr. Frank Krusen, in charge of the Section on Physical Medicine, Mayo Clinic;

Also, Dr. James Somerville McLester, Professor of Medicine, University of Alabama, School of Medicine; Dr. Karl F. Meyer, Professor of Medicine and Director of the George Williams Hooper Foundation for Medical Research, University of California; Dr. Josiah J. Moore, Director of the Moore Clinical Laboratory, Chicago; Dr. Franklin Richards Nuzum, Director of Cardio-Vascular Research at the Santa Barbara Cottage Hospital; Dr. Hobart Ansteth Reimann, Professor of Medicine, Jefferson Medical College, Philadelphia;

Also, Dr. Howard A. Rusk, New York Times and Consultant for the Baruch Committee on Physical Medicine; Dr. Willard Haywood Squires, New York Hospital for Special Surgery; Dr. William Daniel Stroud, Cardiologist, Philadelphia; and Dr. Harry Winkler, Orthopedic Surgeon, Charlotte, North Carolina.

SOCIAL SECURITY*

By Senator B. B. Hickenlooper

The medical profession today faces one of its crucial tests, but it does not face this test alone. The public itself has a more vital stake in the problems confronting us in the field of public health and social problems. I say the public has the greatest stake because, in the long run, it will be the general public more than the professional man as individual that will suffer or benefit by proposals or programs which may be put into effect. It will be the public that will benefit from a free, stimulated, and progressive approach to sickness and health, or it will be the public that will suffer from a submerged, controlled and stereotyped treatment of public ailments by a regimented and circumscribed medicine.

We have a great tendency, when we talk about matters involving social security, to confuse or to unite security with freedom and to consider them as synonymous. They, of course, are not synonymous, and when security is had as a result of government paternalism, it results in a corresponding reduction of the fundamental freedom of the individual. A good illustration is the case of the slave who works for a paternalistic master who provides him food and shelter and a reasonable assurance of living out his life in modest comfort. He has security but no freedom; his independence is gone, and the stimulus for his own personal progress is non-existent.

As paternalistic governmental security increases in scope and extends itself to more and more segments of our society, those segments in turn give up their latitude of action and freedom of choice, and much of the incentive which stimulates people to assume their own responsibilities. Government paternalism means government dictation and rule; it means government control; and, as it extends its scope, the control and regimentation extend and the individual finds himself accepting paternalism in more and more fields of his normal freedom and being hedged about in proportion by rote, rule, and regulation which he must not transgress without losing the enervating security which he has come to lean upon.

There is a movement in this country, on the part of some, to substitute entirely paternalistic controls by government which mean dictation and regulation of all the major phases of our society by centralized government in Washington for the system of individual responsibility commonly referred to as free enterprise.

High sounding slogans are mouthed and high sounding purposes are announced, all of which are intriguing to many people who do not read the detailed proposals that are made in support of these slogans. We are in the very midst of such a period now, and only the calm and sensible consideration by the public, in its own interest, will secure the adoption of sound and progressive laws and policies affecting the public interest and eliminate the programs which will, in fact, be destructive of the very freedoms and responsibilities which have made America great and which must be retained if America is to stay great.

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*Journal of Iowa State Medical Society, June, 1946.

THE NATIONAL FOUNDATION FOR INFANTILE PARALYSIS, INC.

This communication has been prompted by numerous requests from physicians throughout the state.

As of August 26, 1946, the following hospitals in Nebraska and in the immediate surrounding areas are prepared to accept polio patients for modern care and treatment:

NEBRASKA—
In Lincoln, the Orthopedic Hospital will accept unmarried polio patients who have not yet reached their 21st birthday.

In Omaha, both the St. Joseph Hospital and the Douglas County Hospital are accepting children or adults.

A temporary treatment center is at this time in the process of being established at the St. Joseph Hospital in Alliance.

IOWA—
In Sioux City, the St. Joseph Hospital and the St. Vincent's Hospital are accepting children or adults.

SOUTH DAKOTA—
In Hot Springs, the Lutheran Hospital is accepting children or adults.

COLORADO—
In Denver, the Colorado General Hospital (State) and the Denver General Hospital (City) are accepting children or adults.

The Denver Children's Hospital, accepting children to 16 years of age, reported some days ago as temporarily filled to capacity, is now again in a position to accept addition cases, according to information at hand.

It is important, of course, in all instances that the physician telephone or wire the hospital to ascertain that space is available for his patient.

The following are emergency services for which the funds of a local chapter of the National Foundation for Infantile Paralysis may be expended: Ambulance service; hospital care; nursing service; doctor's care, including consultation services if desired by the patient's physician; long distance telephone calls by the physician in arranging hospitalization—in short, anything pertaining to the provision of medical care for the polio patient.

Whenever payment for any of above services will in any way tend to work a financial hardship upon the individual or family involved, the local county chapter of the National Foundation may pay the bill. Families are not expected to mortgage their belongings before being eligible for help, nor are they expected to borrow mony, sell the family automobile, or use the funds which may have been put aside to send a child to school.

In the September issue of your Nebraska State Medical Journal you will find a list of local county chapter chairmen and secretaries in Nebraska as last reported.

The office of the Nebraska State Representative for the National Foundation for Infantile Paralysis, Mr. Clinton Kelknap, is located at 440 Stuart Building, Lincöln, Nebraska. His office telephone number is 2-4827; his home telephone number is 3-6330. He stands ready at all times to be of any service possible to the medical profession.

TRANSPORTATION OF INFANTILE PARALYSIS PATIENTS

The transportation to hospitals of acute infantile paralysis cases presents special problems. The patient should not be permitted to sit up in an automobile, but should always be placed in a recumbent position on a rigid frame or mattress. It may be necessary to use boards to keep the body in a straight position. If paralysis involves arms or legs these should be supported and restrained by the use of pillows, sand bags, or splints. If there is involvement of the legs these should be held nearly parallel to each other and not be twisted to either side. If there is much spasm in the muscles of the legs it may be necessary to place a small pillow or a rolled towel under the knees. A similar pad may be needed under the back. The purpose of this pillow or towel is to ease the discomfort and to overcome the danger of sudden stretching of muscles in spasm. The arms should be kept at the side of the body with the elbows slightly bent.

If the patient is suffering from the bulbar type of the disease where breathing is disturbed or where there is inability to swallow, then the patient's body should be titled so that the head is about four inches lower than the rest of the body. This allows for postural drainage of mucus and saliva and prevents pneumonia due to aspiration of this material. The attendant should be supplied with cotton swabs to help remove mucus from the throat.

These insructions should be given to all ambulance drivers, nurses, parents, and others concerned with transportation of the acute infantile paralysis case. Unless careful attention is given to these details, permanent damage or even death might result.

HOSPITAL NEWS

Allotment figures to the states for the five year hospital construction program authorized in the Hospital Survey and Construction Act (Public Law 725) were released the latter part of August by Surgeon Genereal Thomas Parran of the United States Public Health Service. The Act authorizes the appropriation of $3,000,000 for statewide hospital surveys and for planning of construction programs, and $75,000,000 annually for five years for the actual construction of hospitals and related facilities.

Of these amounts authorized, only $2,350,000 has been appropriated to date. This is earmarked for assistance to states in surveying and planning and for administrative expenses of the U. S. Public Health Service in connection with this program.

The share to which each state is entitled from the $3,000,000 authorization for survey and planning expenses is based solely on state population. For determination of the distribution of the $75,000,000 authorized for construction, a formula is used which takes into consideration both the population and the per capita income of each state.

The allotments to the several states based on appropriations authorized in the Act are contingent upon Department of Commerce certification of population data. Preliminary estimates for Nebraska are $26,461 for survey and planning, and $685,200 for construction.

* * *

Formation of a Division of Hospital Facilities to assist Surgeon General Thomas Parran in carrying out the provisions of the Hospital Survey and Construction Act was announced recently by the United States Public Health Service.

This division will absorb the functions of the Hospital Facilities Section of the States Relations Division, Bureau of State Services, which was abolished simultaneously with the creation of the Division of Hospital Facilities.

Headed by Medical Director Vane M. Hoge, the newly formed division of the Bureau of State Services will be responsible for carrying out the functions which the U. S. Public Health Service is authorized to perform in accordance with the provisions of the Act. This will include assistance to the states, their political subdivisions, and non-profit organizations in matters relating to the study, construction and operation of hospitals. The Division will also assist the Surgeon General in preparing regulations, determining allotments and grants and considering applications, plans and projects.

* * *

The University of Nebraska board of regents approved a $33,000 increase in the budget of the University hospital in August to cover increased costs of food and services.

The hospital budget was increased from $201,876 to $235,000 for the year.

The board also granted a request from students of the medical college at Omaha for establishment of a canteen. The students offered to pay an activity fee to finance the project, and it will be administered by the student activity board, which supervises the student union here.

* * *

A report on the American Nurses association seminar on "collective bargaining" which was held in Chicago on May 31 was made by Mrs. Avis Scholder, past president of the Nebraska State Nurses association, before a gathering of district association members at a closed meeting at the Y.W.C.A. Monday evening.

The advantages of "collective bargaining" were pointed out by Mrs. Scholder who stated that nurses are leaving the institutional field of nursing at an alarming rate because of the undesirable hours, the 48-hour week, and lack of a retirement plan.

"In an effort to make the field more attractive," Mrs. Scholder stated, "the Nebraska State Nurses association adopted a minimum standard of personnel practices and salaries for general duty nurses on May 10." She stated that the co-operation of Nebraska hospitals has been solicited by the association.

"Desirable working conditions must be instituted by nurse employers and more student nurses enrolled in schools in order that the public have adequate nursing care," she stated. The present supply of professional nurses, according to Mrs. Scholder, is not adequate.

Other objectives of the association, which has 1,600 members, according to Mrs. Scholder, include a counseling and placement service and a drive to encourage professional nurses to register for licenses under the Nebraska laws.

—From Lincoln Star.

COUNCIL ON MEDICAL SERVICE AND PUBLIC RELATIONS, A.M.A.

There's no midsummer lag in medical organization circles this year—and there shouldn't be, for blazing hotter than the August sun are problems burning their way into the conversation of every physician interested in county and state medical society activities.

Among these problems are:

1. John Lewis' new welfare and retirement fund. Every one should know about this and what it may mean politically and medically.
2. Organization of the new public relations department of the A.M.A. which the Board of Trustees is now developing.
3. Developments of hospital and medical care facilities in each state under the Hill-Burton bill.
4. Forthcoming study of Blue Cross by the United States Public Health Service.

MIDWINTER MEETINGS

These problems will be high lighted at a series of meetings that already are being planned for the winter season which will be upon us before we know it. So mark the dates of these important meetings which have been set for Chicago:

December 7 and 8, Secretaries' and Editors' Conference.

December 9-11, Semi-annual meeting of House of Delegates.

February 7 and 8, Second Annual National Conference on Rural Health.

February 9, Annual National Conference on Medical Service.

February 10 and 11, Congress on Medical Education.

OF NATIONAL SIGNIFICANCE

Significance of the agreement between the government and the United Mine Workers of America under the leadership of John L. Lewis which places health and medical services for the workers under union control is becoming increasingly apparent and can scarcely be over-estimated. The following events emphasize the importance of the situation both from a medical and political standpoint. What happens in this instance very likely will extend to other industries. These events are:

1. Money collected in the first six weeks will net three and one-half million dollars for the miners' welfare and retirement fund. That's from just one of the two funds, separate in nature and source, that are set up under the coal agreement. These two funds are:

a. The welfare and retirement fund, created by a five cent per ton impost on every ton of coal produced, is to be administered by three trustees, one appointed by the Coal Administrator, one by the union, and one to be agreed upon by both the Coal Administrator and John Lewis.

b. The medical and hospital fund to be administered entirely by three trustees appointed by the president of the Mine Workers Union and to be built up by check off from miners' pay.

Heretofore most of the medical services in the bituminous coal industry have been rendered by physicians under direct contract with the coal operators. Hereafter arrangements for such services will be in the hands of the union.

2. The health and medical service survey of the bituminous coal mine areas of the Navy under the direction of Vice Admiral Ben Moreell, Coal Administrator, and conducted by Rear Admiral Joel T. Boone, (MC), U.S.N., Director of Medical Survey, is under way. The document which results will be of great importance to the entire practice of medicine.

This is a fact finding survey conducted by five teams of Navy men, each directed by a Navy medical officer. These surveys being conducted under the direction of physicians will be in sufficient detail to get the facts in regard to hospitalization, medical service, housing, recreational facilities, etc., throughout the bituminous industry which includes more than two-thirds of the states.

The definite date for the completion of the survey is not yet determined but Admiral Boone hopes that it may be finished before October. It is understood that the Coal Administrator will await the outcome of the survey before making his recommendations to the Secretary of the Interior and to the President of the United States.

3. The formation of the Association of Mine Physicians completed recently at Williamson, West Virginia, brings to the forefront many problems and conditions under which medical practice has been conducted in the soft coal areas. At the present this organization is made up largely of those doctors doing work in the West Virginia, Kentucky, Tennessee, Pennsylvania, Virginia, Alabama areas. Principal direction in the movement has been provided by George W. Easley, M.D., Williamson, and E. O. Rogers, M.D., Bluefield, West Virginia.

4. Resolutions presented by Kentucky and Michigan and passed by the House of Delegates at the San Francisco session, call for an active interest by the American Medical Association under the direction of the Council on Medical Service in conjunction with the Council on Industrial Health.

HEALTH AND FITNESS

During World War II the United States Government and the American Medical Association had a Joint Committee on Physical Fitness. With the end of the war the government withdrew and the Ameriacn Medical Association representatives thereafter constituted an Association Committee on Physical Fitness. This committee requested the Bureau of Health Education to suggest plans by which the American Medical Association could contribute to the improvement of health and physical fitness in the postwar period.

The plan submitted by the Bureau, approved by the Board of Trustees and included in the 1946 Bureau budget, called for the employment of two professional persons and necessary clerical help to conduct a program promoting fitness through cooperation with the nation's schools. A physician, Dr. Dean F. Smiley, and a physical educator, Fred V. Hein, Ph.D., have been employed and added to the staff of the Bureau of Health Education. Doctor Smiley joined the staff August 16, and Doctor Hein September 16, 1946. Their duties will be to study health education and physical education in our schools and the preparation of teachers for functioning in these fields. Information will be collected and a clearing house established on courses of study, materials, school health service programs and physical education. The relationship of environmental conditions and administrative situations to health and fitness will also be studied. These consultants will be available in the field to study situations and participate in planning locally for the establishment or improvement of health programs. No attempt will be made to "sell" a hard and fast program. Efforts will be devoted to cooperative planning for the improvement of our school programs leading to better health and fitness and the existence of these programs where they do not exist. The consultants will work in close cooperation with the Joint Committee on Health Problems in Education which the National Education Association and the American Medical Association have long maintained. The services of these consultants will be available to state and local medical societies by correspondence or field trips. No local cooperation will be entered into with agencies outside the medical profession except through local medical channels or with local medical approval. The entire plan is based on the theory that better health and greater fitness for the nation can be achieved only through the nation's schools. The primary purpose of these consultants will be planning and consultation; promotional activities will be secondary, but either Doctor Smiley or Doctor Hein will be available for local engagements to address men's luncheon clubs, women's organizations, and meetings of professional persons, medical or educational, upon invitation or approval of the local medical society.

OFFICE OF THE SURGEON GENERAL

MEDICAL SCHOOL GRADUATES OFFERED RESERVE COMMISSIONS, INTERNSHIPS

Major General Norman T. Kirk, the Army Surgeon General, announced that there are 83 First Lieutenant reserve commissions available for 1947 Medical School graduates who desire internships in Army hospitals.

Along with the commission goes an annual salary of $3,404 if the officer has dependents. If he has no dependents, he will receive $2,972 a year. These figures include a rental allowance of $60 monthly where government quarters are not furnished.

The commissions represent an unprecedented departure from former Army practice when interns were classified as civilian employees and received about $1,000 annually while completing their fifth or clinical, year of study. With some 90,000 patients in Army hospitals the world over and prospects of a large peacetime Army, the Army Medical Department is seeking young doctors interested in a career in military medicine.

In the event that a man who receives a reserve commission does not elect to remain in the Army following his internship or does not develop to meet requirements for Army doctors, his training will not be lost. The internship, the conventional rotating type, is recognized by the Council on Medical Education and Hospitals of the American Medical Association and by State Boards of Registration. They require the clinical year of training before granting a license to practice.

In notifying Deans of accredited medical schools of the plan, the Surgeon General asked that they recommend men, not only desirable as interns, but who will ultimately develop as Regular Army medical officers. A professional examination will not be required before the internship is accepted.

Applications may be submitted by students through the Deans of their respective schools. Each applicant who qualifies will be notified. Application blanks may be obtained from the Deans of medical schools.

GENERAL EISENHOWER PRAISES MEDICAL DEPARTMENT ON 171ST BIRTHDAY

Before an estimated crowd of more than 1,000, General of the Army Dwight D. Eisenhower paid homage to the Army Medical Department on its 171st anniversary on July 27 at Army Medical Center in a coast-to-coast radio broadcast.

Introduced by Brigadier General George C. Beach, Jr., commandant of Army Medical Center, General Eisenhower praised the Medical Department for its great successes before, during and since World War II.

"Even when viewed only from the narrow standpoint of battle line efficiency, the Medical Department was an invaluable asset to our commanders of this war," General Eisenhower stated. "In the recent European campaign 30,000 more wounded men were treated, healed and sent back to the front line than were numbered in the entire average strength cf the Medical Department of that theater."

General Eisenhower heaped praise on the department for the "moral effect upon our fighting men of a human, devoted, efficient Medical Corps. Unbounded appreciation and admiration were freely given by combat soldiers to their comrades of the Medical Department," he stated.

"These sentiments were best expressed," the Chief of Staff explained, "by the unanimous insistence of our front line regiments that their Medical detachments be awarded a battle badge equivalent in its implication to the one that decorated the combat infantry. A greater military accolade than this, no deparment, no service, no unit could receive."

Major General Norman T. Kirk, the Surgeon General, declared that even though combat is ended, the Army retains its responsibility for keeping the soldier healthy and fit for duty. He described the Army doctor as the soldier's best friend and most intimate confidant.

"When war struck, the Army Medical Department suddenly became the family physician and the nurse for the majority of the youth of this nation," he said. "This responsibility was accepted without equivocation. We will continue to be not only physician but friend and confidant of all men in our charge—seeking not to minimize but to enlarge our responsibilities."

General Kirk said the Medical Department of the Army is now entering a new age of such promise that overwhelms the imagination. He briefly outlined some of the accomplishments of military medicine since the department was organized in 1775 and stated the Army Medical Department was now facing squarely into the future.

"We have helped win wars. We have helped preserve the Republic. We have implemented every other arm and service. It is better to look forward now into that new age of which we have seen the thunder-filled dawn," General Kirk said.

The observance at the Army Medical Center was one of many programs commemorating the Army Medical Department's birthday which were held throughout the country. Following the broadcast, General Eisenhower presented the Legion of Merit to Colonel Frank S. Gillespie, Royal Army Medical Corps, for his outstanding services as British medical liaison officer to the Army Medical Department.

EFFECTS OF EXTREME COLD STUDIED BY SURGEON GENERAL'S OFFICE

Extreme or prolonged cold tends to clot red blood cells so that they plug the circulation, which eventually results in development of gangrene and loss of limbs. This has been established, it was reported by the Surgeon General's Office, both by careful study of pathological tissue from overseas soldiers and experiments with rabbits in which limbs were subjected to temperatures of minus 30 centigrade.

The condition became of great importance in the European Theater during the last war. It was most dramatically exemplified among air crews subjected to the extreme temperatures four or five miles over the clouds. Even an exposure of a minute or so might result in the loss of a finger.

It was one of the chief causes of casualties in the Apennines campaign o fthe winter of 1943-44. Infantrymen sometimes stayed days at a time in foxholes filled with slush and ice-cold water. When they were relieved they would be unable to walk and were in almost unbearable pain. Often this persisted for weeks after treatment and loss of toes was not infequent.

The condition was one in which there had been little previous experience and its pathology was not understood.

A report on the samples of pathological tissue has just been made by Major Nathan B. Friedman of the Army Institute of Pathology. Several varying effects of cold were noted but in all cases were found the red blood cell "plugs" which had stopped the circulation and prevented its restoration. Hence part of a limb would lose its blood supply and gangrene would be the almost inevitable result.

The same condition could be produced in the rabbit limbs immersed half an hour in alcohol at minus 30 centigrade. This was a far more severe exposure than a soldier ever would be likely to encounter.

The clotting could be prevented in the rabbits, however, by injections of an anti-clotting substance known as heparin. Treated rabbits seemed little the worse off when their legs were thawed.

The rabit experiments were carried out by Dr. Hurt Lange and David Weiner of the New York Medical College, working in cooperation with the Institute of Pathology.

"SHELL SHOCK" STUDY SHOWS FEWER CASES IN WORLD WAR II

Hysteria—the so-called "shell-shock" of the first world war although probably a majority of its victims never heard a shell fired—persisted on a greatly diminished scale among American troops in the last war, according to an announcement from the Surgeon General's Office.

It was predominantly a mental malady of the last generation. Essentially it is manifested as a syndrome which simulates, without organic basis, some pathological physical condition. A victim will develop, for example, a paralyzed arm but physical examination shows that the paralyzed area does not follow any single nerve or group of nerves. A man may be suddenly stricken blind but nothing wrong can be found with his eyes or optic nerve.

A hysteric is not consciously faking. For all practical purposes his arm is really paralyzed or his eyes sightless. Questioning often will reveal that the victim has had a hard blow on the arm or gotten a bug in his eye. If such a condition is not recognized it may persist for years and the organ involved may actually become useless permanently through disuse.

At about the time of the first world war this was common enough both among the military and civilians. On the part of the soldier it was an unconscious flight from danger. A hysterically paralyzed arm was a means of running away without suffering any of the penalties.

Shortly after the war psychiatrists began to report that no hysterical cases were coming to their offices any more. Instead they were getting more and more cases of so-called "anxiety neurosis", an overwhelming fear without specific physical manifestations.. It was explained that the pattern of reaction of the individual with a somewhat unstable nervous system was changing with the changing times. Hysterics was a disease of a simpler environment.

This persisted into the second world war. Many of the younger military psychiatrists never had seen an hysterical case and knew of the condition only through text-books.

They talked of "anxiety neurosis", "combat fatigue", and the like. For the most part, they were right. But, according to a study just reported by Lieut. Col. David B. Davis and Capt. John W. Bick of the Army Medical Corps, about one out of five of more than 1,000 neuropsychiatric cases returned to one American hospital from overseas was actually a victim of hysteria.

"It is evident that hysteria was not of infrequent occurrence in World War Two," they conclude.

NEBRASKA STATE DEPARTMENT OF HEALTH

The Occurrence of Malaria in Veterans

Since the first of the year (approximately seven months) 110 cases of malaria have been reported in Nebraska, all of them being returned military personnel. These reports have originated in 40 of the state's 93 counties. Twenty counties reported one case each; cases reported from eighteen counties varied from two to six. Twelve cases were reported from Platte county, 28 from Lancaster. Douglas county is among the group reporting only one case.

Reasonable anticipation would be that the case rate in the various counties would be in ratio to population, influenced somewhat by hospitalization. Most of the cases reported in Lancaster county were from the Veterans Hospital. However, reports from Platte county were at a rate of about 800 for the state, while those from Douglas county were at a rate corresponding to five or six cases for the state. The only conclusions that can be drawn from these figures are that reporting of cases of this disease is entirely inadequate and that there are many cases in the state.

During the same period a total of 118 specimens have been examined by the Department's laboratories for malarial parasites. Some of these specimens were so poorly prepared that the laboratory was offered but little opportunity of finding the parasite. Malarial parasites were, however, found in 55 of these specimens. All parasites found were p. vivax.

An epidemiological report form was used as an enclosure in reporting on specimens for malaria in which parasites were found. Efforts to obtain detailed reports were also made by the Department through other channels.

Such detailed reports have been secured on 56 cases. These reports indicate the clinical onset of the disease was prior to separation from the military forces in 17 cases (30%) and after separation in 39 cases (70%). Obviously suppressive medication, as used in the military forces, had been effective, resulting in a delay in the onset of symptoms for varying periods after its discontinuance. In two of these cases the onset of symptoms is recorded as over seven months after the patient left a malarious area and in one case the interval exceeded 18 months.

While the diagnosis of malaria, when its delayed onset occurs in those who have been in malarious areas, is deserving of medical alertness and diagnostic skill, the prevention of new infections is equally important. The diagnosed case, at least during the acute stage, presents little probability of transmittal, as proper methods of handling are so well recognized. It is with the unrecognized latent stage or with the so called carrier that the greatest danger exists.

Latency, the period in which parasites are still present unaccompanied by obvious symptoms, is relatively rare in p. falciparum infections, not uncommon with p. vivax and more frequent with p. malariae infections. In some instances the state of latency may be discovered by examination of the blood for parasites. The thick film method is much more valuable for this purpose than the thin film. In many cases latency exists that can not be detected by laboratory examination.

Negative results of a blood film is not conclusive evidence of the absence of parasites in the blood stream and could not possibly detect those present in the spleen or bone morrow. Latency has been proven many times by relapses and in a not inconsiderable number of cases by transmission through blood transfusions.

The duration of latency undoubtedly varies. In most cases it probably does not exceed two years. Many instances have been reported, however, in excess of this, some of them exceeding thirty years.

It is to be remembered that there is no practical method of determining the termination period of infectivity.

Methods of transmission other than the infected mosquito include infected syringes and needles and blood transfusion. Numerous cases of transmission through infected syringes have been reported among drug addicts. This means of transmission is also not unknown in hospital experiences, a fact that should further influence those responsible to establish proper hospital and clinic technics and to insist on their observance.

The host of returned soldiers, sailors and civilians who have been in malarious areas provide a real possibility of transmission through transfusions that must be recognized. If a physician is inclined to be careless of the welfare of his patients he might still be concerned with the possibility of lawsuits. Certainly the question of malaria should be considered in the selection of every donor.

The physician should know the malarious areas of the world and should be cautious about accepting as a donor anyone who has been in these areas. An individual who has not been in such areas and is otherwise equally acceptable should be given preference.

The minimum requirements for a prospective donor who has been in a malarious area and who has not had an attack of malaria should be one year following the use of any suppressive treatment and negative results on a thick smear examined by a competent laboratory.

The minimum requirements for one who has had malaria should include the same requirement of laboratory test and should be not less than two years after the cessation of any treatment and the occurrence of any malaria-like symptoms.

L. O. VOSE, Director of Laboratories,
State Department of Health,
Lincoln, Nebraska.

REPORT OF EXECUTIVE DIRECTOR OF NEBRASKA MEDICAL SERVICE

NEBRASKA MEDICAL SERVICE
CASH RECEIPTS AND DISBURSEMENTS

August 31, 1946

Cash on hand August 1, 1946		$35,499.25
Receipts:		
From dues	$ 9,165.25	
From enrollment fees	819.00	
Taxes deducted from salaries	4.30	9,988.55
		$45,487.80
Disbursements:		
Administrative expense	$ 1,570.86	
Claims paid	4,544.00	
Salary, Executive Director	150.00	
Secretary's fee	25.00	
Advertising	20.59	
Printing and stationery	409.78	
Attorney	50.00	
Refunds	58.50	
Exchange	------	
Home office travel and expense	131.09	
Collection expense	2.27	
Taxes paid	------	
Postage	50.61	
Medical adviser	50.00	
Dues	40.00	7,102.70
Cash on hand, August 31, 1946		$38,385.10
Bank Balance, August 31, 1946		$38,385.10

NEBRASKA MEDICAL SERVICE
BALANCE SHEET

August 31, 1946

Assets:		
Cash in bank	$38,385.10	
Premiums in process of collection	4,113.18	
U. S. Bonds (cost plus accrued interest)	15,035.55	
Prepaid insurance premiums	------	57,533.83
Liabilities:		
Accounts payable, Blue Cross	$ 1,968.30	
Accounts payable, monthly invoices	462.64	
Accrued payroll taxes	11.60	

Claims payable		2,000.00	
Accrued audit expense		200.00	
Unearned premiums		17,315.94	
		$21,958.48	
Subscribers 4% Surplus Notes	$19,450.00		
Net income to date	16,125.35		
		35,575.35	
			$57,533.83

NEBRASKA MEDICAL SERVICE INCOME AND EXPENSE

August 31, 1946

	August 1946	8 Months to Date
Income:		
From dues	$10,116.00	$53,163.25
From enrollment fees	819.00	4,123.00
	$10,935.00	$57,286.25
Expenses:		
Claims	5,444.00	28,565.00
Salary, Executive Director	150.00	1,200.00
Legal	50.00	370.00
Auditing	25.00	200.00
Advertising	133.14	966.74
Printing	322.50	2,119.14
Stationery	------	48.33
Insurance	22.92	162.92
Administrative expense	1,857.56	10,467.01
Home office travel and expense	131.09	427.09
Secretarys' fees	25.00	200.00
Collection expense	2.27	15.09
Taxes and licenses	1.50	42.00
Miscellaneous	4.50	36.05
Postage	50.61	183.45
Dues	40.00	89.25
Medical Adviser	50.00	340.00
	$ 8,310.09	$45,432.07
Net Gain	$ 2,624.91	$11,854.18

MEMBERSHIP—August, 1946

	Subscribers	Dependents	Total
1. Membership, August 1, 1946	6,168	8,015	14,183
Additions	880	1,647	2,527
Cancellations	67	97	164
Membership, September 1, 1946	6,981	9,565	16,546
2. Number of groups now enrolled			432
3. Number of groups added during July			13

4. Members enrolled by salesmen:

M. W. Ashton (outstate)	371
W. V. Jones (Omaha)	148
B. R. Lohnes (Omaha)	121
G. S. Malone (outstate)	52
C. H. Smith (Omaha)	135
Office	53
	880

AUGUST ENROLLMENT BY COMMUNITIES

OMAHA—5 groups, 414 members: Eastman Kodak Store; Kenney's Market; Lutheran Children's Home; Skelly Oil Company No. 12; Swift and Company.

YORK—1 group, 6 members: Moore Drug Company.

OGALLALA—1 group, 36 members: Goodall Electric Company.

ORD—2 members.

SCOTTSBLUFF—7 members.

CAMBRIDGE—1 member.

NEBRASKA CITY—3 members.

SUTHERLAND—1 member.

WILCOX—1 member.

LINCOLN—2 groups, 43 members: Lincoln Grain Company; Seventh Day Adventists.

SUPERIOR—2 groups, 16 members: Farmers Union Co-op. Creamery; Morris Motor Company.

HASTINGS—1 group, 316 members; Naval Ammunition Depot.

NELSON—1 group, 13 members: Nuckolls County Court House.

FALLS CITY—4 members.

FREMONT—1 member.

BEATRICE—2 members.

HOLDREGE—2 members.

NORTH PLATTE—12 members.

NEBRASKA MEDICAL SERVICE CLAIM REPORT

August, 1946

Number of claims paid	109
Number of services rendered	125
Females	65
Males	44
Subscribers	48
Dependents	61

Type of Service	Number	Amt. Paid
Anesthesia	1	$ 10.00
Appendectomies	9	900.00
Eye	5	115.00
Gall Bladders	-	------
General Surgey	8	430.00
Gynecology	16	1,110.00
Hemorrhoids	4	200.00
Herniotomies	-	------
Minor Surgery	22	136.00
Nose and Throat	1	100.00
Obstetrics	2	85.00
Orthopedics	17	644.00
Pathology	1	5.00
Radiation Therapy	2	150.00
Tonsillectomies	14	480.00
Transfusions	-	------
Urology	1	50.00
X-rays	22	155.00
	125	$ 4,570.00

Amount of claims in process of settlement—$2,000.00

BOOKS RECEIVED

Men Without Guns—Text by DeWitt Mackenzie, War Analyst of the Associated Press; Descriptive Captions by Major Clarence Worden, Medical Dept. of the United States Army; Foreword by Major General Norman T. Kirk, Surgeon General of the United States Army. Illustrated with 137 plates (118 in color) from the Abbott collection of paintings owned by the United States Government. The Blakiston Company, Philadelphia & Toronto, 1945. Price $5.00.

This book records the great work of the Army Medical Corps in the war. In words and pictures the story is told of the services of our doctors, nurses, and enlisted men on the battlefields and in the hospitals of Europe and Asia. Packed with the dramatic tenseness and excitement of modern warfare, it is an authentic account of the men who fought without guns to save human life rather than destroy it.

DeWitt Mackenzie, of the Associated Press, whose graphic recital of the story behind the pictures reproduced in this book will hold the reader's attention from beginning to end, was a war correspondent in World War I, and as Associated Press war analyst during World War II covered the African, European, Burma, China, and Pacific fronts, where he saw the Army Medical Corps in action. From his firsthand knowledge of the various combat areas visited by the artists whose work is represented here, and from years of experience in gathering and presenting facts, he has succeeded in producing a contemporary record of extraordinary interest and permanent value.

A dozen American artists braved the hardships and perils of war to make the notable series of historical paintings, now the property of the United States Government, reproduced in Men Without Guns.

Penicillin—Its Practical Application, under the General Editorship of Professor Sir Alexander Fleming, M.B., B.S., F.R.C.P., F.R.C.S., F.R.S., Professor of Bacteriology in the University of London, St. Mary's Hospital, London. 380 pages wilth 59 illustrations. The Blakiston Company, Philadelphia, 1946. Price $7.00.

New, authentic, eminently practical—this book tells the general practitioner and surgeon how to use penicillin for best results. Twenty-eight specialists working under the editorial supervision of Dr. Fleming present the latest details for the successful use of the drug in various fields of practical medicine. It gives dosages, forms and methods of administration, prophylactic uses, control, etc., in the words of the famous physicians who developed their uses. Contains an abundance of unique illustrations.

ROSTER OF NEBRASKA PHYSICIANS IN MILITARY SERVICE

As of September 15, 1946

ADAMS COUNTY
Shaw, W. L., Hastings
Uridil, C. F., Hastings

BUFFALO COUNTY
Albertson, L. C., Kearney
Dickinson, L. E., Ravenna
Hayes, C. B., Kearney
Wilcox, M. B., Kearney

BUTLER COUNTY
Ragan, L. E., David City

CUMING COUNTY
Krause, Richard A., West Point
Robbins, H. M., West Point
Thompson, L. L., West Point

CUSTER COUNTY
Leonard, Patrick, Broken Bow
Pester, Geo., Broken Bow
Raasch, Richard, Broken Bow

DAWES COUNTY
McElligott, E. W., Chadron

DOUGLAS COUNTY
OMAHA
Avery, Hiram Henry
Barber, Herbert Gordon
Bowers, Warren F.
Carp, Oscar, Int.
Crawford, Wm. Henry
Curti, Ralph Elmer
Dolce, Daniel D., Int.
Dornberger, G. R.
Everitt, Neill J.
Fogarty, Chas. James
Gross, Jos. J.
Green, Chas. Joseph
Harms, H. H., Int.
Hartford, Thos. J.
Hennegan, Geo. F.
Kemp, Wm. T.
Koutsky, Jas. John, Int.
Krieg, Jacob J., Int.
Lierman, C. E., Int.
Mooater, Chas. J., Int.
Patton, John Erwin
Peterson, Wendell Case
Reiner, Walter M., Int.
Senter, Vance E., Int.
Strand, Clarence Johnson

FILLMORE COUNTY
Tucker, John G., Milligan

GAGE COUNTY
Rush, Weaver A., Beatrice
Smartwood, F. M., Adams

HALL COUNTY
Johnson, E. George, Grand Island

JEFFERSON COUNTY
Lynch, Geo. M., Fairbury

KEARNEY COUNTY
Sutton, Bruce, Minden

LANCASTER COUNTY
LINCOLN
Colbert, Morgan R.
Everett, H. H., Jr.
Lotman, Harry Alfred
Sheldon, Keith
William, Russell I.

LINCOLN COUNTY
Anderson, Gustave Theodore, N. Platte
Anderson, Thorwald R., N. Platte

OTOE COUNTY
Campbell, G. C., Nebraska City
Thorough, Paul H., Syracuse

PAWNEE COUNTY
Harmon, Leo D., Pawnee City

RICHARDSON COUNTY
Youngman, R. A., Falls City

SAUNDERS COUNTY
Kasper, R. J., Wahoo

SCOTTS BLUFF COUNTY
Black, Eugene W., Gering
Hanna, Joe T., Scottsbluff

THAYER COUNTY
Panter, Lt. E. G., Hebron

VALLEY COUNTY
Round, John N., Ord

HUMAN INTEREST TALES

Communications bearing human appeal are solicited. They should be addressed to The Editor, Nebraska State Medical Journal, Mezzanine No. 3, Medical Arts Building, Omaha.

Dr. Ralph L. Cassell, recently discharged from military service, has located at Fairbury.

Dr. R. C. Byers, Jr., has become associated with his father, Dr. R. C. Byers, Sr., of Fremont.

Dr. John G. Lavender has located at Silver City, Ia., since his discharge from military service.

Dr. and Mrs. Warren Thompson have returned to Omaha after spending a month's stay in Estes Park, Colo.

Dr. A. David Cloyd and his family vacationed at their summer cottage in Estes Park, Colo. during August.

Dr. and Mrs. I. C. Munger have returned to Lincoln after a two months' vacation in the northwest and Colorado.

Dr. Elmer L. Penner has come from Pennhurst, Pa., to be associated with his father Dr. L. E. Penner at Beatrice.

Dr. L. V. Brennan, who practiced at Canton, Mo. before entering military service, has opened an office at Falls City.

Dr. George W. Ainlay, formerly of Fairbury and recently discharged from service, is now practicing in Los Angeles, Calif.

Dr. Rudolph Sievers, formerly with U. S. Public Health Service at Washington, is officing with Dr. C. D. Howard at Blair.

Dr. James A. Cornish has become associated with Dr. A. J. Schwedhelm at Norfolk. Both physicians served in World War II.

Dr. Rex Wilson, Peru, has received his discharge from the Army Medical Corps, but has no immediate plans for his civilian life.

Dr. John F. Campbell has resumed his practice with the Grand Island Clinic. It will be limited to obstetrics and gynecology.

Dr. Nichols Bailey since his discharge from military service, is affiliated with Drs. W. D. Lear and R. R. Brady at Ainsworth.

Dr. Leo Phelan, who had practiced 55 years before his retirement two years ago, is leaving Grand Island to make his home in Chicago.

Major Don E. Brewster, Holdrege, now on terminal leave, is taking a four months refresher course at the University of Minnesota.

Dr. Jack Colglazier, Falls City, has been appointed assistant to the Medical director of the Indiana University Medical Center, Indianapolis.

Dr. J. W. Wahl is associated with Dr. C. R. Williams of Syracuse. He recently received his discharge from the Navy Medical Corps.

Dr. Lincoln Riley who has practiced at Wisner for the past 58 years, observed his 79th birthday by leaving for a short vacation trip to Colorado.

Dr. Theo. Koefoot, Jr., recently discharged from the Army Medical Corps, is associated with his father, Dr. Theo. Koefoot, Sr., at Broken Bow.

At the annual meeting of the American College of Chest Physicians, held at San Francisco, California, June 27-30, 1946, Dr. John F. Allen, Omaha, was elected Governor of the College for the State of Nebraska.

Col. Bryan C. T. Fenton, Lincoln, graduate of the University of Nebraska College of Medicine, has been assigned as assistant director of the training division at the Brooke Army Medical Center, Fort Sam Houston, Texas.

Dr. E. A. Rogers, Director, Tuberculosis Survey, Nebraska State Department of Health, began six weeks of intensive tuberculosis study in New York

State on September 9. Dr. Rogers will spend four weeks at the Trudeau School of Tuberculosis, at Saranac Lake, and two weeks at Bellevue Hospital, New York City. This additional training is made possible by a National Tuberculosis Association scholarship. Travel and living expenses will be paid by the Nebraska Tuberculosis Association.

SOCIETIES

Secretaries of county and district societies are requested to send in the minutes of their meetings to The Editor, Mezzanine No. 3, Medical Arts Building, Omaha.

The Elkhorn Valley Medical Society met August 15, 1946, at Norfolk Country Club, Norfolk.

The following program was presented: "Vitamin D Intoxications", George W. Covey, M.D., Lincoln; "Some of the Problems Connected with the Treatment of Cardiovascular Renal Disease in Elderly People", Howard M. Odel, M.D., Rochester, Minnesota; "Plastic Repair of Cutaneous Defects", C. W. McLaughlin, Jr., M.D., Omaha, Nebr.; "Small Intestinal Obstruction and Use of Miller-Abbott Tube", Ira H. Lockwood, M.D., Kansas City, Missouri, Radiologist, Chairman of Standardization for Hospitals Commission of the American College of Radiology.

Dr. W. I. Devers of Pierce was elected president for the ensuing year. Dr. Devers held the vice-presidency the past year and has held the position of secretary in former years.

About 60 physicians attended.

The Madison Six County Medical Society met at Osmond, September 5th. A medical staff meeting at St. Joseph Hospital preceded the meeting at the church parlor of the Presbyterian church where dinner was served by the Presbyterian Aid at 7 o'clock. Following dinner a scientific meeting was held with two speakers from Creighton University, Omaha, giving addresses. Dr. Harry McCarthy spoke on "Surgical Treatment of Bronchiectasis." "Acute Gall Bladder Diseases in the Aged," was discussed by Dr. S. J. Caranazzo.

WARN AGAINST USE OF NEW DRUG FOR EPILEPSY

The new drug tridione, widely acclaimed for the treatment of epilepsy, has been found to carry an unpredictable toxic reaction and five physicians, writing in the September 7 issue of The Journal of the American Medical Association, warn that the public should not be allowed to buy the drug without a prescription.

While tridione has been tried and found effective in the treatment of hundreds of epileptic patients with no apparent ill effects, two women are known to have died as a direct result of administration of the drug. Their case histories are reported in two separate articles in The Journal.

One case is reported by Drs. Francis F. Harrison, Roswell D. Johnson and Darrell Ayer, of Cooperstown, N. Y., and the other by Drs. Roland P. Mackay and Werner K. Gottstein, who are from the Department of Neurology and Neurological Surgery, University of Illinois College of Medicine, Chicago.

Both patients died from aplastic anemia.

A 16-year-old girl who had suffered from convulsive seizures for three years, died following the use of tridione and hydantoin. The treatment was successful in controlling the attacks, but the patient gradually began to notice difficulty in breathing, palpitation on exertion, unusual fatigue, and a throbbing sensation in her head. The patient later suffered hemorrhages. All the measures used to prevent and treat infection, stimulate blood cell production and arrest bleeding proved of no value.

A 23-year-old unmarried woman had suffered convulsive seizures since she was five years old. After repeated major convulsive seizures, tridione was administered. Later she suffered from severe headaches, with vomiting, generalized weakness and fatigue. Autopsy revealed extensive hemorrhages throughout the body.

In discussing the case, Drs. Mackay and Gottstein say:

"There is little doubt that death was due to tridione. The only drugs used by the patient for 10 months prior to her death were phenobarbital and tridione, and she had taken phenobarbital almost constantly for 19 years without ill effect.

"The destruction of the elements of her blood was delayed but abrupt. The acute onset of her illness came only after 10 months, but it came suddenly. These facts strongly suggest a progressive accumulation of the drug, or of toxic fractions of it, in the body. As late as two days before her admission to the hospital she walked several blocks without distress. The process was therefore catastrophic and apparently uninfluenced by vigorous treatment."

After outlining several suggestions to other physicians on the use of tridione, the Chicago doctors say:

"Unprescribed sale of the drug to the public should not be allowed. The present enthusiasm for tridione, both among the profession and with the public, is very great, because of the glowing accounts which have appeared in the scientific and public press, and even on the radio. The public knows the drug by name and can buy it on the market. A doctor's prescription is recommended on the company's labels and should be required.

"Finally, further research with tridione and related substances must be carried out. Despite the unfortunate toxic effects of tridione revealed in this case, the drug offers great promise for effective control of the most stubborn of all convulsive disorders, if its dangers can be avoided. This promise should be fulfilled."

Commenting editorially on the use of the drug, The Journal says:

"Until more frequent serious toxic effects are encountered with tridione, its continued use with due regard to such occurrences is considered to be a comparatively safe adjunct in the treatment of epilepsy, but these reports once again demonstrate the need for constant observation of patients when the effective, but potent, drugs of today are administered."

THE NEBRASKA STATE MEDICAL JOURNAL

ESTABLISHED 1916 BY THE NEBRASKA STATE MEDICAL ASSOCIATION

Vol. 31 Norfolk, Nebraska, November, 1946 No. 11

EDITORIAL

The State elections this month bear a direct interest to every conscientious physician. For almost two decades Nebraska has been a model to the nation in legislation designed to protect the health of its citizens. The statutes regulating the practice of the healing arts are as sound as one could find them in any part of the United States, and in many respects they are far better than in most of the states. This in no way implies that we have arrived at the goal in our efforts to guard the people of this state against quackery and charlatanism, but we have come a long way since the enactment of the Basic Science Law in 1927.

Contrary to popular impression, legislation regardless of quality does not come about as a result of spontaneous generation. Bills are sponsored by individuals or groups in an attempt to secure their passage. While the majority of such bills aim to improve the welfare of the public, many others aim to promote selfish personal or special group interests. As an organization the Nebraska State Medical Association is not in politics. It does have a vital interest in all phases of legislation pertaining to the health of the citizens of this state. The Association has in the past sponsored bills which proved of benefit to the public. We shall continue to suggest statutory enactments consistent with scientific progress in medicine and public health.

The problem now is to maintain the safeguards thus far attained and to enlist an honest and intelligent membership in the Senate. Absurd and pathetic though it may appear to any informed person, each session of our unicameral legislature is deluged with bills which if passed would destroy our hard-earned gains and make the State of Nebraska a haven for every crook and fakir equipped with a white coat and a few impressive but worthless gadgets guaranteed to cure all human ills. These bills are invariably sponsored by pressure groups endowed with few principles but ample funds. They always manage to find some listening ears among our representatives. According to the record, some few senators consider it their perennial duty to encourage if not sponsor legislative measures which, were it not for the strenuous efforts and the alertness of the progressive elements among our senators, would set this state back two generations.

Some of these doubtful public benefactors are again running for office. It is the duty of every citizen to do his utmost toward their defeat to prevent such men from election to public office.

THE FAMILY DOCTOR AND VOCATIONAL REHABILITATION FOR THE NEEDY

The Federal government has created many activities for the purpose of helping the needy, the aged, the sick and the physically handicapped. This has been done by generous appropriations of money to be matched by the states. In doing so, it has necessitated the creation of many administrative staffs, nationally and locally, at great expense. Through cooperation and coordination of these activities between these agencies and interested citizens, much expense and waste could be eliminated.

The Nebraska State Department of Vocational Rehabilitation is a department that can produce, through its activities in rehabilitation, a good return on the money spent in restoring the needy vocationally handicapped to a status of being self-supporting.

Needy vocationally handicapped are referred to this department by many agencies. It seems that much unnecessary work could be eliminated and better and speedier results obtained if these needy handicapped could be directly referred by the family doctor without any intermediaries. The family doctor sees these people, he knows their circumstances, and certainly is a better judge in determining whether a physical disability is a vocational handicap and if there are possibilities of these disabilities to be improved so that clients may become self-supporting. In this way, the physician will help a worthwhile endeavor by aiding the department in getting suitable cases.

Before starting the program, the State Board of Vocational Rehabilitation asked for the cooperation and approval of the Nebraska Medical Association. As a result, a committee was appointed from its membership to act as the Professional Advisory Committee and cooperate with the department in an advisory capacity. Dr. K. S. J. Hohlen was appointed the Medical Administrative Consultant with the approval of the committee.

—K. S. J. H.

EMIC

At the last meeting of the House of Delegates in May, the House passed a resolution which in effect stated that inasmuch as EMIC was conceived in an emergency during the war and inasmuch as the emergency has passed, the Nebraska State Medical Association views the program at the present time as an unnecessary and unwarranted system in which the doctor who participates is selling his birthright for a mess of pottage. It is a softening up process whereby the bureucrats are simply getting people accustomed to so-called free medical service in preparation for a huge compulsory sickness-insurance program. In the opinion of the House of Delegates the participation by the doctors is the best aid that our social uplifters can receive in promulgating a national system of medical care administered from Washington. The Journal was requested to bring this to the attention of the members of the Nebraska State Medical Association and to request them to cooperate in warding off socialization of the medical profession.

DR. MORRIS FISHBEIN

Dr. Morris Fishbein, editor of the Journal of the Aemrican Medical Association, is described in the October 19 Saturday Evening Post as "the best-known and least-liked doctor in the United States."

In an article entitled "Medicine's India-Rubber Man," Greer Williams writes that Dr. Fishbein "has been the despair of the best people and the worst—of professors and of quacks. He has been sued by cranks, vilified by patent-medicine makers, damned by senators, deplored by social workers, exposed by muckrakers and repudiated by medical societies. But his reflexes are still good at the age of fifty-seven. Always this small, hunchy man with the bald head, big ears, waving hands and cheerful insolence has bounced back."

Dr. Fishbein, the article goes, "owes his somewhat mixed distinction to a double-edged truism: a sharp tongue dulls friendship, but it also gets attention. Like all success formulas, this one has spells of backfiring. Even so, Fishbein has made it almost a sure thing by saying what most doctors would like to have said and by being the only one of his kind."

When the American Medical Association observes its 100th anniversary in Atlantic City next June, the article states, Dr. Fishbein "as much as any man—can take credit for its growth."

FLASH

Agreement for Home Town Medical Care for Veterans Is An Accomplished Fact

According to Dr. A. J. Offerman, on October 18, 1946, an agreement was reached between the Nebraska State Medical Association and the Veterans Administration to provide medical care for veterans by home town doctors. In the beginning, the greatest percentage of this work will be physical examinations to help determine disability ratings. There are also provisions for remedial medical care for service connected disabilities.

A very extensive fee schedule has been agreed upon, that seems to be mutually satisfactory to the Veterans Administration and the Nebraska State Medical Association. More detailed information concerning this plan for medical care for veterans will be supplied to the membership of the Nebraska State Medical Association in the immediate future.

PRESIDENT EARLE G. JOHNSON
Grand Island

The Nebraska Medical Service has been growing steadily since its organization less than a year ago under the Nebraska Surgical Plan. It is now helping many families in the State to budget their medical care annually so they will not be caught short on expenditures for unpredictable in-hospital medical or surgical conditions.

While the progress of the Service is favorable its rate of development can be materially increased through the efforts of the physician individually in his community. Won't you do your part? The Nebraska Medical Service is your answer to attempted socialization of your profession.

EARLE G. JOHNSON, M.D.
President.

Acute Hepatitis in Civilian Practice*

GEORGE B. EUSTERMAN, M.D.
Division of Medicine, Mayo Clinic
Rochester, Minnesota

Because of the prevalence, during the second World War, of infectious and homologous serum hepatitis, especially the former, disorders which were among the most important noncombatant causes of morbidity among troops of all branches of the military service, it is obvious that the topic assigned to me for consideration is a timely and absorbing one. Medical officers have taken advantage of an exceptional opportunity, as a result of which many excellent studies on the etiology, epidemiology, pathology, symptomatology and treatment of infectious hepatitis have been published in the past four years. Suffice it to say that knowledge concerning these various aspects of the disease has been greatly clarified and extended.

By virtue of the important bearing that such acknowledged progress has on the diagnosis and treatment of acute inflammation of the liver as it occurs in civilian practice, it seems appropriate to summarize at least some of the salient facts gleaned from military medical experiences and their application to the problems of civilian practice. In the first place, the virus nature of the infectious agent in infectious hepatitis, which has been apparent for some time, and which appears to be more or less identical with that of homologous serum jaundice, has been amply confirmed. This agent passes through bacteria-trapping filters and can survive heating at 56° C. for at least thirty minutes. But until recently all attempts to isolate and cultivate the causative organism have been unsuccessful because of the inability to transmit the infection to laboratory animals. This necessitated the use of human volunteers. Recently, however, MacCallum and Miles have reported the transmission of the infection by serial inoculation in rats which had been on a diet designed to produce a mild degree of nutritional damage to the liver. The virulence for rats increased with successive passages and the agent was filtrable and relatively small.

Most authorities are now agreed that the old term "catarrhal jaundice," whether applied to the epidemic, endemic or sporadic manifestation of the disease, is a misnomer because it is based on a misconception of pathogenesis of almost a century's duration. Therefore, the old belief that the disease was due to an obstruction of the common duct at the ampulla of Vater by a mucous plug, as the result of duodenal catarrh and that the liver was unaffected except for associated mild cholangitis, has been relegated to the scientific limbo. As a matter of fact, it has been known for the past seven years, on the basis of information afforded by repeated necropsies and numerous biopsies of hepatic tissue, that the pathologic process is an acute diffuse hepatitis. In addition, more recent observations on the results of duodenal intubation have failed to reveal convincing evidence of the presence of duodenobiliary catarrh.

The causal agent can be recovered from the feces or blood of affected patients. It is present in the blood during the acute stage and for a period as yet undetermined prior to this. It has been found in the urine and nasopharyngeal washings. The disease can be transmitted to man by parenteral injections of blood, plasma or filtered fecal extracts, by feeding blood or feces, or by spraying infected materials into the nasopharynx. There is strong epidemiologic evidence that the disease is contracted under natural conditions by the ingestion of food or water contaminated by infected feces. It is also believed that some epidemics during the late war were due to the dissemination of the virus by eating utensils, and by flies feeding on infected excreta and cadavers on the battle field. Actual transmission of serum jaundice by the use of contaminated syringes has been reported by several British observers.

The pathologic picture is that of necrosis and autolysis of hepatic cells, most marked about the hepatic vein, and leukocytic and histiocytic reaction in the portal tracts. The latter is more prominent in the mild cases and the former in severe cases. One is frequently impressed with the widespread damage to the liver and one wonders how recovery can possibly take place. This phenomenon exemplifies the well-known capacity of the hepatic cells to regenerate. Biopsies done on the first day of detectable jaundice reveal advanced hepatitis, indicating that hepatic damage probably begins with the prodromal symptoms, which are so often gastrointestinal in nature. This has also been borne out in one reported instance by tests of hepatic function. It is not unlikely that what is observed clinically, for the major part, is that which occurs during the process of regeneration. The pathologic lesions of homologous serum jaundice and arsenical jaundice are practically indistinguishable from those of infectious hepatitis. Observations have been reported which indicate that postarsphenamine jaundice frequently was not due to the toxic action of arsenic on the liver but to the transfer of virus from one patient to another, so-called syringe jaundice. In fatal cases of infectious hepatitis the liver shows massive acute necrosis at necropsy, so-called yellow or red atrophy. Subacute fatal forms are also encountered occasionally.

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*Read before the seventy-eighth annual convention of the Nebraska State Medical Association, Lincoln, Nebraska, May 7, 1946.

Infectious jaundice has a variable incubation period, reported observations showing a range of from ten to eighty-four days. In Murphy's two cases in which the disease was transmitted by blood transfusion, the incubation period was twenty-four and forty-seven days, respectively. The average period is regarded as thirty days. In homologous serum jaundice the incubation period varies from sixty-three to 161 days. The average period is considered to be 100 days.

The symptoms and clinical course should be familiar to all practitioners. There is usually a prodromal period of a few days to two or three weeks, characterized by an initial temperature ranging from 100° to 103° F., associated with chilly sensations, malaise, anorexia, headaches, pruritus, marked fatigue, gastro-intestinal disturbances and abdominal discomfort or pain. After a few days there may be a remission of the fever and symptoms, followed, after a varying interval, by a secondary rise in temperature, a recurrence of symptoms of greater severity and the appearance of jaundice. The jaundice usually reaches a maximum within a week and then slowly subsides, coincidently with amelioration of the symptoms. During the icteric phase biliuria, acholic stools, enlarged liver, with or without associated tenderness, and splenomegaly may be observed. The jaundice usually disappears after two to four weeks but may last for three months, or even longer. Fortunately, the immediate mortality rate is low, perhaps less than 0.2 per cent, but convalescence is frequently prolonged, especially among military personnel.

In most cases the diagnosis of acute intrahepatic forms of jaundice, infectious hepatitis in particular, under military circumstances presented little or no difficulties. According to Hoagland and Shank the most common mistakes in diagnosis were made in the preicteric phase of the disease and consisted in confusion of hepatitis with infections of the upper respiratory tract, infectious mononucleosis and atypical pneumonias. Weil's disease, amebic hepatitis, malarial hepatitis, cholecystitis, hemolytic jaundice and obstructive lesions of the biliary tract were occasionally ventured as alternative diagnoses in a few cases after the onset of the jaundice.

The results of tests of hepatic function during the course of the disease have been reported by a number of observers. Two days after the onset of symptoms Murphy found an abnormal rise of serum phosphatase and a cephalin flocculation of 3+/3+. Five days later the icterus index was found to be elevated to 30, the quantitative van den Bergh reaction to 3.5 mg. per 100 c.c. of serum, the prothrombin time was delayed, and there was a further increase in the serum phosphatase level. The icterus index remained at a high level for almost three weeks and assumed a normal level four weeks later. Page and Preisler expressed the opinion that the results of the intravenous hippuric acid tests portray the most reliable correlation between a single laboratory test and the clinical findings in patients with this disease. Hoagland and Shank found that the level of plasma bilirubin, the ratio of free to total plasma cholesterol and the plasma retention of bromsulfalein were the most useful tests and the least subject to equivocation in interpretation. These observers, like Barker and his associates(1), found the bromsulfalein test to be reliably informative during the convalescent period when the concentration of plasma bilirubin was normal or nearly so.

The rather urgent need for some simple and dependable laboratory test that will detect the presence of diffuse hepatic damage in its earliest stages is apparent. The application of such a test is especially important in the preicteric stage of infectious hepatitis and in those instances of the disease in which jaundice never occurs. As a matter of fact, those who have had an opportunity to study carefully large groups of cases are convinced that the patients without jaundice exceed in number those with it. This appears to be especially true of the disease in its milder form. As the patients without jaundice, in whom other direct symptoms and signs of hepatic disease may be lacking, may easily go undiagnosed, laboratory aids to diagnosis are essential. As a result, new procedures, especially those for the detection of bilirubin in the urine, as well as modifications of former ones, are in evidence. Among these may be mentioned the Harrison spot test, described by White, the Hunter test as modified by Pollock and the methylene blue test. The last mentioned test has received considerable acclaim but has been discredited by several groups of investigators.

The percentage of cases in which chronic hepatitis and eventually cirrhosis will develop as the result of an attack of infectious hepatitis is not known with any certainty at the present time. According to Lucke the possibility of the development of any significant sequelae is rather slight. Barker, Capps and Allen(2) have observed that the syndrome of chronic infectious hepatitis is a reasonably common condition of a disabling nature. They found that the most characteristic and diagnostic feature is the increase in physical findings, symptoms and laboratory evidence of hepatic dysfunction produced by exercise. To what extent significant sequelae, especially hepatic cirrhosis, will eventually occur constitutes an important field of postwar research. About eight years ago Bloomfield(4) pointed out that in a little more than 10 per cent of a small group of patients with hepatic cirrhosis coming under his observation the disease was instituted by an acute attack of hepatitis. In the light of these findings the prevailing optimism with respect to the infrequency of sequelae may eventually be dispelled. It is not unlikely that some, if not the majority of patients with hepatic cirrhosis of unknown cause may have had an antecedent nonicteric form of infectious hepatitis which, not having been recognized, was also not treated. Such sequence of events could facilitate the formation of later sequelae of a chronic progressive nature.

With respect to treatment, the outstanding innovation was the insistence on an adequate regimen of rest in bed. As a matter of fact, complete rest in bed was usually advocated until the temperature was normal, the urine was free of bile and the liver was no longer palpable. Such procedure seems somewhat paradoxical considering the present vogue of curtailing rest in the course of treatment of many disorders as well as in surgical after-treatment. However, there appears to be no doubt about the propriety and necessity for adequate rest in bed for patients with infectious hepatitis. During the convalescent period reduced physical activity and the avoidance of alcohol and dietary indiscretions are also essential. The principle underlying dietotherapy is similar to that in the treatment of cirrhosis; namely, a high protein, high carbohydrate and low fat diet. The intake of food and fluids should be sufficient to protect the patient from dehydration, acidosis and breakdown of tissue as the result of malnutrition. Witts expressed the belief that one should neither starve the liver nor overburden it with material. In his opinion a light diet, with plenty of milk from which the top layer of cream has been removed, is preferable to other diets. Like others, he emphasized the point that the problem of treatment arises when the patient has absolutely no desire to eat. Nevertheless, as pointed out by Berger, a diet for hepatitis composed of approximately 225 gm. of protein, 500 gm. of carbohydrate and 75 gm. of fat, totaling 3,500 calories, resulted in marked improvement and in an accelerated recovery of the patients.

To what extent the sulfur-containing amino acids, such as methionine and choline, as well as crude liver extract, are effective adjuvants to treatment of infectious and homologous serum hepatitis, is still controversial. However, good results have been reported in the treatment of acute hepatitis of toxic origin with those amino acids, especially methionine. The fat-soluble vitamins A, D and K are recommended, vitamin K, in particular, if the prothrombin time (Quick) is delayed. There are also those who advocate the generous use of the B complex. Stokes and Neefe have demonstrated the preventive and attenuative effect of gamma globulin on infectious hepatitis. The data suggest that the best results are obtained when the globulin is injected early in the incubation period. However, it may also be of therapeutic value in the preicteric stage of the disease.

To the physician familiar with acute hepatitis as it occurs in civilian practice, it should be readily apparent that the medical officer in the armed forces, apart from research activities, has a less difficult problem than the civilian physician. As pointed out by Hoagland and Shank, the relatively high incidence of hepatitis of epidemic nature and the relative infrequency of obstructive, chronic degenerative and neoplastic lesions of the biliary tract in men of military age who were free from all evidences of chronic ill health and physical disability prior to induction offered favorable circumstances for correct clinical diagnosis.

In order to illustrate the greater complexity of the problem from our standpoint, I reviewed 100 consecutive cases of acute hepatitis in which the diagnosis was unequivocal and in which all the patients were jaundiced, with one exception. Table I is illustrative of the fact that a variety of clinical types is encountered, the differentiation of which may be exceedingly difficult, in fact impossible at times, in the absence of a serologic or other specific diagnostic test for infectious hepatitis. Of course, to less extent the toxic, bacterial and protozoal forms were also encountered in military practice during World War II.

In many cases these were in association with so-called tropical diseases such as malaria and amebiasis and as the result of familiar hepatotoxins such as the arsenicals and alcohol. Table I also reveals what had been expected; namely, a preponderance of patients with infectious hepatitis, comprising 74 per cent of the total. Also to be noted is the preponderance of males, constituting 70 per cent, even though most authorities, notably Blumer, consider infectious hepatitis a disease of adolescence attacking both sexes equally.

The hepatotoxins which figured most prominently in the series of sixteen cases of acute hepatitis were cinchophen (four), alcohol (four), miscellaneous pharmaceutical products (five), and arsphenamine and hyperthyroid crises (one each). In one instance the cause was undetermined. In the bacterial group, consisting of nine cases, four were the result of septic states, two in association with chronic ulcerative colitis, one each as the result of scarlet fever and pneumonia, and one represented a case of intercurrent hepatitis with jaundice in a patient with subclinical latent stones in the gallbladder and common duct. The most interesting case in the septic group was one of fatal brucellosis septicemia in association with mitral ulcerative endocarditis due to the same organism as that causing the systemic infection.

Perhaps the most disconcerting factor is the age incidence. In Table II it will be noted that forty-four of seventy-four patients with infectious hepatitis, almost 60 per cent, were more than thirty years of age. This relatively advanced age also characterized the other groups: the average age of the patients with toxic hepatitis was forty-two years, and of those with bacterial hepatitis, omitting one infant two months of age, was forty years. As two thirds of the patients reported by Bloomfield⁽⁵⁾ were between thirty-one and fifty years of age, he concluded that acute hepatitis was not necessarily a disease of young adults. I use the expression "disconcerting" in the sense that in view of the age incidence the numerous possibilities giving rise to jaundice are greatly enhanced, thus increasing the diagnostic difficulties. These possibilities are summarized in Table III and, if routinely canvassed, are helpful in diagnosis by exclusion.

With further respect to diagnosis under the circumstances of civilian practice infectious hepatitis is rarely recognized in the preicteric stage. The sporadic occurrence, which characterizes the large majority, is considerable extenuation of the lapse in this respect. In this stage the diagnosis is usually that of "flu," often "intestinal flu," acute infection of the upper respiratory tract, or fever of obscure origin. The symptoms and signs of major importance in diagnosis in this stage appeared to be anorexia, abdominal discomfort, with or without hepatic enlargement and tenderness, absence of leukocytosis, increased excretion of urinary urobilinogen and evidence of hepatic damage as revealed by such simple laboratory procedure as the cephalin-cholesterol flocculation test. Once jaundice supervenes, the diagnosis is apparent, especially if the patient is young and if abdominal pain or discomfort has been absent or inconsequential. On the other hand, with the appearance of jaundice, irrespective of the age of the patient, there is a ready tendency in some quarters to look on the condition as surgical, especially in elderly patients who have experienced some abdominal pain or discomfort which may be localized to the right upper quadrant of the abdomen. Such distressing abdominal manifestations are not incompatible with acute inflammatory states of the liver as well as with chronic hepatitis and cirrhosis. Markoff attributed the pain in acute hepatitis to atonic-spastic conditions of the small bowel from the duodenum downward, disturbances which often permit of roentgenologic verification. One may be further misled by the results of cholecystographic examination. As false positive findings are the rule in the presence of any appreciable jaundice, such examination should be postponed until the jaundice disappears.

In my experience the three most important factors to exclude in the average sporadic case of infectious hepatitis, especially in the absence of classical clinical manifestations, are an intercurrent acute hepatitis in association with hepatic cirrhosis, obstructive jaundice of malignant origin, especially when an elderly patient is concerned, and infrequently an intercurrent hepatitis with jaundice in a patient who has latent stones in the gallbladder or ducts, or both. Under such circumstances a detailed case history, careful physical examination, certain tests of hepatic function and observation in the hospital, coupled with the all-important clarifying element of time, usually make possible a successful differential diagnosis. The importance of accurate diagnosis under the circumstances cannot be overemphasized because a patient with acute hepatitis, of whatever nature, is a poor surgical risk, and in the debatable case it behooves one to give him the benefit of the doubt. In "surgical" jaundice of benign nature (stones, stricture) in the absence of frank evidence of suppurative cholangitis, a reasonable delay, during which time the integrity of the liver may be enhanced by proper measures, is justifiable whether operation is eventually carried out or not. In obstructive jaundice of malignant nature the eventual outlook in the large majority of cases is a precarious one anyway, although in recent years some progress in this direction has been made.

The role of laboratory tests in diagnosis in acute hepatitis is deserving of brief consideration. It should always be remembered that such tests are merely accessory to, and not the sine qua non of, diagnosis and prognosis. While a pathologic response is usually of significance, a normal response to any test does not exclude the presence of disease. By and large, as emphasized by Weir, it is better to be familiar with a few standard tests than to resort to many. In the absence of jaundice the following tests may be undertaken: the bromsulfalein, cephalin-cholesterol flocculation and serum phosphatase tests. Determination of plasma cholesterol and cholesterol esters is also indicated. In the presence of jaundice the icterus index level of the serum bilirubin by the method of van den Bergh, the hippuric acid and the serum phosphatase tests are usually employed. However, the hippuric acid test by the oral or intravenous method, the cephalin-cholesterol flocculation and the serum phosphatase test can be carried out on both jaundiced and nonjaundiced patients. It sometimes is essential to repeat the tests from time to time. In the presence of jaundice a high serum bilirubin level and reduction of plasma cholesterol and cholesterol esters point to intrahepatic jaundice, other things being equal.

To differentiate obstructive jaundice, especially that of malignant origin, from intrahepatic jaundice, one frequently resorts to duodenal intubation. This procedure, sometimes repeated, coupled with a quantitative determination of excretion of urobilinogen in the urine and feces, often proves decisive in differentiating an intrahepatic jaundice from an obstructive one. A persistent high level of serum bilirubin and a prolonged prothrombin time (Quick), not responsive to adequate vitamin K therapy, justify a guarded prognosis. Such signs, along with a low output of hippuric acid, coupled with receding levels of cholesterol and esters, are often premonitory of impending hepatic coma, and death from acute yellow atrophy supervenes sooner or later.

In the entire series of 100 cases the number of deaths was eight, or 8 per cent (Table I). As was to be expected, the mortality rate was greatest in the nonvirus, bacterial group. Necropsy routinely revealed a massive acute necrosis, that is, an acute yellow atrophy of the liver. Five of the female patients, four of them with infectious hepatitis, were afflicted during the parturient period. However, there were no deaths in this group.

The principles underlying treatment have already been discussed.

SUMMARY AND CONCLUSIONS

1. The contributions of medical officers in the armed forces during and since the last World War, with particular respect to the etiology, epidemiology and treatment of infectious and homologous serum hepatitis,

have a direct and important bearing on prevention, diagnosis and treatment of acute hepatitis as it occurs in civilian life.

2. The salient features of these contributions have been summarized.

3. The relatively high incidence of hepatitis of epidemic nature and the relative infrequency of obstructive lesions of the biliary tract in men of military age who were free from chronic ill health and physical debility prior to their induction, offer favorable circumstances for correct clinical diagnosis in military practice. In civil practice, on the contrary, the greater variety of clinical types, the increased age incidence and the sporadic occurrence of the disease in most instances make for greater difficulty in proper diagnosis and treatment.

4. In the preicteric stage the condition is usually diagnosed as influenza, acute infection of the upper respiratory tract, atypical pneumonia or fever of undetermined nature. Apparently the symptoms and signs of major diagnostic importance during this stage are anorexia, abdominal discomfort with or without hepatic enlargement or tenderness, absence of leukocytosis, increased excretion of urinary urobilinogen and evidence of hepatic damage as revealed by the simpler tests of hepatic function.

5. Some observers are convinced that patients with infectious hepatitis without jaundice exceed in number those with jaundice. Therefore, it is not improbable that some, if not the majority of, patients with hepatic cirrhosis of unknown cause had had as a precursor an antecedent nonicteric form of infectious hepatitis, which usually goes unrecognized and therefore untreated.

6. The three most important factors to exclude in the average isolated or sporadic case of infectious hepatitis, especially in the absence of classical clinical manifestations, are intercurrent acute hepatitis in association with hepatic cirrhosis, obstructive jaundice of malignant nature, especially in the elderly patient, and less frequently an intercurrent hepatitis with jaundice in a patient who has latent gallstones in the gallbladder or ducts, or both.

7. In a review of 100 consecutive unequivocal cases of acute hepatitis coming under personal observation, in 74 per cent the condition was infectious hepatitis, in 16 per cent it was toxic hepatitis, and in 9 per cent it was bacterial hepatitis of the nonvirus type. The pathologic process in the fatal group of 8 per cent was acute yellow atrophy.

TABLE I

DISTRIBUTION OF ACUTE HEPATITIS BY CLINICAL TYPE

Clinical type	Male	Female	Both Sexes	Deaths
Infectious hepatitis	51	23	74	4
Homologous serum hepatitis	1	—	1	—
Toxic hepatitis	11	5	16	1
Bacterial hepatitis	7	2	9	3

TABLE II

AGE DISTRIBUTION OF INFECTIOUS HEPATITIS

Years	Male	Female	Both Sexes
0- 1	2	—	2
1-10	2	2	4
10-20	4	1	5
20-30	9	10	19
30-40	10	5	15
40-50	10	1	11
50-60	8	4	12
60-70	6	—	6
Total	51	23	74

TABLE III

ACUTE HEPATITIS (TYPES, CAUSES, DIFFERENTIAL DIAGNOSIS)

I. A. Primary infectious forms:

1. Infectious hepatitis (virus).

1a. Homologous serum jaundice.

2. Epidemic hemorrhagic jaundice (Weil's disease).

3. Yellow fever.

B. Secondary infectious forms:

In association with acute syphilis, amebiasis, malaria, pneumonia, scarlet fever, streptococcal infections, typhus, paratyphoid, acute gastro-enteritis and enterocolitis, brucellosis, cholecystitis, appendicitis, sepsis, cholera, gonorrhea, ulcerative colitis.

C. Toxic hepatitis as a result of known hepatotoxins:

Alcohol, cinchophen, arsenic, phosphorus, chloroform, poisonous mushrooms, phenylhydrazine, carbon tetrachloride (carbona, and the like), trinitrotoluene, tribromethanol, sulfonamides, barbiturates, allergens, hyperthyroidism, toxemia of pregnancy, deficiency states.

II. Differential diagnosis: Concerned with (a) proper classification as regards groups A, B and C and (b) exclusion of mechanical forms of icterus, hepatic cirrhosis, carotenemia, hemolytic icterus.

REFERENCES

1. Barker, M. H.; Capps, R. B., and Allen, F. W.: Acute Infectious Hepatitis in the Mediterranean Theater; Including Acute Hepatitis Without Jaundice. J.A.M.A., 128:997-1003, 1945.

2. Barker, M. H.; Capps, R. B., and Allen, F. W.: Chronic Hepatitis in the Mediterranean Theater; A

New Clinical Syndrome. J.A.M.A., 129:653-659, 1945.

3. Berger, Florence M.: Diet in Infectious Hepatitis. J. Am. Dietet. A., 22:210-218, 1946.

4. Bloomfield, A. L.: The Natural History of Chronic Hepatitis (Cirrhosis of the Liver). Am. J. M. Sc., 195:429-444, 1938.

5. Bloomfield, A. L.: How Long Should Operation Be Deferred in Cases of Intense Jaundice of Recent Onset? Surgery, 9:61-64, 1941.

6. Blumer, George: Infectious Jaundice in the United States. J.A.M.A., 81:353-358, 1923.

7. Hoagland, C. L., and Shank, R. E.: Infectious Hepatitis; A Review of 200 Cases. J.A.M.A., 130: 615-621, 1946.

8. Lucke, Balduin: The Structure of the Liver After Recovery from Epidemic Hepatitis. Am. J. Path., 20:595-611, 1944.

9. MacCallum, F. O. and Miles, J. A. R.: A Transmissible Disease in Rats Inoculated with Material from Cases of Infective Hepatitis. Lancet., 1:3-4, 1946.

10. Markoff, N.: Dunndarmveranderungen bei Hepatitis epidemica. Gastroenterologia, 70:24-28, 1945.

11. Murphy, H. M.: The Transmission of Infectious Hepatitis by Blood Transfusion; A Report of Two Cases. Gastroenterology, 5:449-456, 1945.

12. Page, R. C. and Preisler, P. W.: Serial Tests of Hippuric Acid Formation in Hepatitis After Intravenous Sodium Benzoate. Gastroenterology, 5:189-200, 1945.

13. Pollock, M. R.: Pre-icteric Stage of Infective Hepatitis; Value of Biochemical Findings in Diagnosis. Lancet, 2:626-630, 1945.

14. Stokes, Joseph, Jr. and Neefe, J. R.: The Prevention and Attenuation of Infectious Hepatitis by Gamma Globulin; Preliminary Note. J.A.M.A., 127:144-145, 1945.

15. Weir, J. F.: Tests of Liver Function. M. Clin. North America., 1945, pp. 973-981.

16. White, F. W.: Liver Function Tests. Bull. New England M. Center, 8:14-20, 1946.

17. Witts, L. J.: Diseases of the Liver. Practitioner, 155:205-211, 1945.

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In This Issue

HEPATITIS as a disease has been emphasized recently. That there has been an increase in its incidence is generally appreciated. The subject was discussed at the last meeting of the Nebraska State Medical Association, and we here present Dr. Eusterman's paper. You will find it on page.... 436

AT THE 1945 Session of the Omaha Mid-West Clinical Society a paper by Lt. Col. Thomas J. Dry on frost-bite received much attention. This paper should be of interest to every practicing physician. You will find it on page.. 443

GRAVES' DISEASE and its management is a paper presented by Dr. Floyd Rogers at the 1946 Annual Sessions of our Association. The paper is an excellent summary of the disease. See it on page.............................. 447

GASTRO-INTESTINAL ALLERGY is another paper from our last Sessions. Dr. Brodkey of the faculty of medicine at Creighton University School of Medicine presents the point of view which physicians will find interesting and useful. This paper is on page.. 451

THE control of venereal disease has been a live topic in recent years. Dr. Quisenberry, formerly of Lincoln, has made a study of VD control in several rural areas in the United States. In this issue we present a paper in which the doctor reports some of his findings. See page.......................... 456

AGAIN we present a paper under the editorship of Dr. John R. Schenken from the Proceedings of the Nebraska Methodist Hospital staff. It is a practical paper from which much information may be gleaned. Read Useful Procedures in Ambulant Surgery by Dr. Charles McLaughlin, Jr., on page.. 460

Experiences with Late Trench Foot and Frost-Bite*

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During the period of February 2, 1945 to July 29, 1945, four thousand nine hundred and fifty-eight (4,958) patients with trench foot and frost-bite were admitted to the U. S. General Hospital, Camp Carson, Colorado. Our experiences were based on clinical observation, evaluation of results of various types of treatment, pathological studies of amputated parts, physiological studies directed to determine the presence or absence of abnormalities in the vascular system, nervous system, and the sweating mechanism, and on experimental production of thermal injuries to rat tails.†

The vast majority were admitted as litter patients and most of them had not been encouraged to exercise their feet prior to their admission to this hospital. Approximately four-hundred thirty-two (432) patients, 8.5 per cent, had gangrene of one degree or another.

CLINICAL MANIFESTATIONS OF LATE TRENCH FOOT AND FROST-BITE

Pain on weight bearing, rigidity of joints, weakness of the feet, deformity of the feet and toes; swelling, cyanosis, sweating, sensitivity to cold and heat, chronic erythema, and sensory disturbances.

PATHOLOGICAL BASIS FOR THE MANIFESTATIONS OF LATE TRENCH FOOT AND FROST-BITE

The late manifestations of cold injuries are better understood in the light of the events which occur during their inception.

Thermal injuries represent a type of trauma which have much in common with other types of tissue injuries. Since the peripheral blood vessels are so intimately associated with the dissipation of heat, the primary reactions of these vessels to cold injury may be very pronounced and the latter effects may last for many months. Cold also has a direct action on the tissue cells, in addition to the altered metabolism resulting from a disturbed circulation. There is an initial spasm of small blood vessels (and in severe cases even of vessels the size of the dorsalis pedis and posterior tibial arteries) leading to capillary stasis and injury to endothelium which is followed by thrombus formation. Later there is capillary and arteriolar dilatation with escape of both fluid and cellular elements into the surrounding tissues, resulting in redness, bleb formation and ecchymoses. This swelling within the tissues furthers the anoxic state and adds to the injury already produced as a direct result of cold. These phenomena are well demonstrated under experimental conditions.

While the clinical picture is somewhat influenced by the rapidity and the degree of freezing, the pathology of all thermal injuries is essentially the same. In extreme cold, such as exists at high altitudes, tissues are frozen solid in a very short time. This is high-altitude freezing. In sub-zero weather an extremity may be frozen in as little as four or five hours. This is frost-bite. Prolonged exposure to moisture at a temperature of 50° Fahrenheit, or even higher, will extract heat from extremities since water conducts heat better than air does, producing a thermal injury. Clinically this is trench foot, and it can develop over a period varying between a few days to a few weeks. The colder the environment the sooner will these changes develop. Immersion foot is the clinical counterpart of trench foot described in shipwrecked victims who have existed for weeks in life boats.

It is important to appreciate that gangrene associated with thermal injuries may involve a large area of skin yet it may be quite superficial. Underlying tissues though viable, may however, still be the seat of demonstrable pathological changes. It is for this reason that patients whose feet appear quite normal clinically may still have pronounced symptoms and unless this is appreciated such patients may be wrongfully accused of either malingering or of being psychoneurotic. Thus toes previously injured by cold but entirely free of gangrene at the time of amputation for prosthetic reasons—always at the soldier's request—may exhibit pathologic changes⁽¹⁾.

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*Read before the Omaha Mid-West Clinical Society, October, 1945.

† All members of the Professional Staff shared in this program.

The essential pathological changes apart from gangrene are a persistence of intercellular edema and a process of fibrosis. The latter is due to (1) the response of the tissues to the transudate reaching them during the hyperemic stage; this transudate has a high protein content and is an excellent culture medium for fibroblasts; (2) fibrosis replacing tissues devitalized either during the process of freezing or because of anoxemia resulting from edema; and (3) the effects resulting from enforced disuse of the extremities. Examples of these residual pathological changes may be described as they may affect the individual systems, and in so doing the signs and symptoms of late trench foot and frost-bite become understandable.

1. The Integument and Appendages: The skin may show hyperkeratosis, but if in the process of recovery from gangrene, the cutis is destroyed, there may be a thin atrophic scar. Around the sweat glands there may be infiltration, and in some there is complete hyalinisation of the sweat glands.

2. The Subcutaneous Tissues and Fascial Structures may show evidence of a chronic inflammatory reaction with varying degrees of edema, roundcell infiltration, dilated capillaries and varying stages of fibrosis. Later there is organization and fibrosis.

3. The Arterial System: While the tissue changes are somewhat in advance of expectations as judged by the clinical findings, the reverse is actually true of the vascular system⁽²⁾. The large arteries are certainly uniformly normal in late cold injuries as determined by palpation, by oscillometric readings, by the absence of claudication during exercise, and by the normal response to the so-called "plantar ischemia test." The smaller blood vessels are clinically involved in only a small proportion of patients as evidenced by the response to reactive hyperemia. A delayed response when present usually occurred in patients with marked swelling and pain and in these it is assumed that the abnormal response was due to vasospasm rather than to organic arterial disease, in as much as the areas of skin remaining blanched for longer than normal during the test still showed a normal "flare" to histamine. These small vessels then are capable of dilatation.

Capillary microscopy similarly revealed no uniform pattern in late cold injuries. If the foot was cold at the time of examination, the capillaries, as is to be expected, were usually narrow but normal in number, arrangement, cyanosis the capillaries showed varying degrees of dilatation and slowing of blood flow. Studied under varied conditions then the conclusion is reached that vasomotor tone is present except in cyanosis of extreme degree, and blood flow through capillary loops continues with the usual variations.

We have utilized the method of Lange and Boyd to study tissue circulation. Injection of fluorescein into the antecubital vein reaches all tissues. The time that elapses between injection and detection by photoelectric cell in the toes or dorsum of the foot as well as the amount of deflection indicating the amount of dye reaching the area were found to be normal in all cases of late cold injuries studied.

One fairly constant feature noted in the microscopic sections (which would represent the more severe cases) is a persistence of dilated capillaries in association with the process of chronic fibrosis already described. It is quite possible that the warm cyanotic foot seen as a sequel of cold injury results from a slowed capillary flow, allowing a greater de-oxygenation of blood, in combination with the increased metabolic demand for oxygen by tissues the seat of chronic, sterile, inflammation. However, it is probable that other factors are concerned such as shunting of blood through arterio-venous anastomoses. It is further apparent that the appearance of the skin does not necessarily reflect the state of the deeper circulation.

4. Peripheral Nerve System. The sensory disturbances so prominent in the early phase of trench foot may persist for many months. Essentially the change in the peripheral nerves is a demyelinization and actual degeneration of nerve fibres, accounting for the anesthesia and parasthesia.

5. Musculo-Tendonous System. Disruption of muscle fibres with persistent edema, may be seen associated with the same process of organization within muscle bundles. Tendons may show various degree of disintegration with round-cell infiltration and fibrosis. The tendon sheaths and periarticular structures share in the process of fibrosis with secondary contractures, especially if functional rehabilitation of the feet has not been carried out.

6. The Osseous System. The osseous system may show any of the following changes: (a) Periostitis. In the early stages the periosteum is separated from the bone by transudation and within this transudation a process of organization occurs, leaving the periosteum separated from the bone.

(b) Osteitis of Phalanges. This was quite rare.

(c) Necrosis of Bone Marrow with Subsequent Fibrosis.

(d) A Generalized Demineralization of All the Bones of the Foot. The last mentioned condition is much the same as is seen in the Sudeck type of atrophy. It is quite possible that this change is the result of disuse as much as it is the result of the initial injury. It is important to state further that the degree of pain on weight-bearing has no relation to the degree of demineralization.

7. The Joints. Joints may show adhesions within the joint space and in severe cases there may even be destruction of the articular cartilages with widening of the joint space.

It is clear then, that cold injuries may affect any or all of the tissues of an extremity. The skin, while resistant to injury often suffers markedly because of the direct contact with cold; the vulnerability of the peripheral nerves, as evidenced by early and prolonged sensory changes, is in keeping with the biologic concept that the more highly specialized tissues are more susceptible to injuries of all kinds. The explanation for the tendency to develop the various orthopedic difficulties, referred to in the later phases of cold injuries, also becomes apparent.

THE PROBLEM OF PATHOLOGIC SWEATING

The exact mechanism of excessive sweating is not understood. Some observers feel that pathologic sweating is nothing other than a combat reaction; others feel that, while this may be a factor, the reason for this abnormal sweating lies in the sweat glands themselves and may be due to either irritation or regeneration of these glands or of regenerating sudorific nerves. That morphologic changes are present in sweat glands has been shown. Certain observations are worthy of mention. (a) Pathologic sweating becomes especially marked when patients become ambulatory and after they begin to wear shoes and stockings. (b) It is tremendously accentuated by emotional or psychic stimulation and yet it occurs during sleep also. (c) Sweating may be most prominent on the dorsum of the foot and toes, and minimal on plantar surfaces, or vice versa. Sweating will occur in patients whose feet are markedly cold and cyanotic, in those whose feet are warm and of good color, and it will occur in the same individual regardless of whether the foot is warm or cold at the time of examination. Furthermore, sweating will occur in patients who demonstrate no objective findings of the results of trench foot such as swelling, discoloration, etc., at the time of examination. Occlusion of the circulation above the knee will not inhibit the sweating, but during reactive hyperemia following the release of the occlusion, sweating is increased. (d) Areas where the cutaneous sensation is disturbed will exhibit pathologic sweating in the same manner as areas of the foot where the sensation is normal. (e) Atropinization to the point of dryness of the tongue and visual disturbance will cause diminution of pathologic sweating, but not surpress it completely. While psychogenic factors are undoubtedly common in all combat troups the conclusion that actual organic change in sweat glands or sodorific nerves are also responsible, is inescapable.

TREATMENT (MEDICAL PHASE)

Impressed by the orthopedic nature of many of the late sequelae of cold injuries, the conclusion that active functional rehabilitation of feet should be of importance in recovery was arrived at early in the program and subsequent experience confirmed this beyond any doubt. The following plan was evolved to insure the application of this principle:

1. Orientation and Re-Education. The soldier must be convinced that exercising his feet will improve them, and that complete recovery, while delayed at times for many months, depends largely on this.

2. Exercise. Walking and remedial exercises were insisted upon from the day of admission. To insure full participation in and maximum benefit from remedial exercises, the following routine was established:

a. Group demonstration by a member of the Physiotherapy Department of correct manner of oiling and massaging the feet and of manipulating stiffened joints.

b. Group exercises conducted in cadence by trained ward personnel.

c. Individual supervision by the ward officer and trained ward personnel of refractory patients, who because of pain due to soft tissue swelling and the effects of disuse, found it difficult to bear weight or take more than a few steps at a time.

d. A liberal pass policy and a promise of furlough, if they proved their ability to walk, were of considerable aid in keeping patients on their feet, and in increasing their activities.

3. Foot Hygiene. The cleansing of the feet of accumulated dirt, dead and desquamating skin, which acted like so many foreign bodies, made walking less painful. This proved easier after soaking and washing with soap and water.

4. Adequate Foot Support. Proper fitting shoes were helpful in encouraging patients to take longer walks than they otherwise would have. Most patients were uncomfortable unless they were fitted with shoes at least one size larger than the accustomed size. For those who experienced pain on weight bearing in the transverse arches of their feet, a properly placed metatarsal arch support proved of great value in relieving pain on weight bearing. The small group of patients in whom marked swelling and associated pain on weight bearing were prominent, followed essentially the same line of therapy described. At the time of writing, some of them are still incapacitated. Their future is uncertain, but in all likelihood there will be a slow trend towards recovery.

The treatment of patients with actual gangrene differed in no way from the groups described until they were ready for transfer to the Surgical Service. Walking and foot care were stressed with the view of increasing the function of the foot, improving the nutrition of soft tissue, mobilizing stiffened joints, and improving the well-being of the patient while waiting for tissue to separate, either spontaneously or by surgical intervention. It was remarkable to see how well a patient with mummification of the toes or gangrene of the foot could walk. This was in marked contrast to the small group of patients with persistent soft tissue swelling without gangrene.

The care of the gangrenous parts consisted of daily debridement of the curled up edges of the eschar, thus exposing the viable tissue. These raw surfaces were left exposed to the open air if uninfected and permitted to heal spontaneously. Occasionally gross infection with associated lymphangitis, or cellulitis, or both would occur. These were usually patients in whom infected secretions were entrapped under the eschar. These patients responded promptly to either sulfonamides or, preferably, parenteral penicillin administration. Wet dressings were found to favor infection and to produce pain in the affected parts and the use of such applications were discontinued very early in the program. The value of penicillin applied topically to control local infection was felt to be of some value.

If during the program of conservative treatment bone was exposed, such dead bone was removed flush with the vital tissue by means of a rongeur. No anesthetic or special preparation was required. In many such patients, granulation tissue replaced the bone and scarred over without the necessity of reconstructive revision. The surgical staff made regular rounds with the medical staff and whenever it was considered that a patient was ready for elective amputation or revision, he was transferred to the Surgical Service.

TREATMENT OF HYPERHIDROSIS

The treatment of the sweaty foot was always in the foreground. Good foot hygiene was of some value but in some cases sweating was definitely disabling. A special form of therapy was successfully employed. This consisted of the introduction of one per cent formalin into the skin by means of an electric current (electrophoresis). Six daily treatments were sufficient to produce relief in most cases. These could be repeated if sweating returned.

REFERENCES

1. Major Miles Foster, Chief of Laboratory Service: Unpublished data.
2. Captain Irwin Stein, Chief of Cardiovascular-Renal Service: Unpublished data.

Technicians estimate that the amount of light used by the average family each month is equivalent to the rays of 1,000 pounds of candles.

Medical Management of Graves' Disease*

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In discussing the medical management of Graves' disease, I would like to emphasize certain fundamental and general principles which are involved even at the expense of briefly outlining the actual medical management. Research, especially in the fields of physiology and chemistry during recent years has supplied the physician and surgeon with many new concepts of disease and with new and better methods of treatment. In some cases our concepts and treatment have been made more simple and in others more complicated. In all cases, a more complete understanding of disease is desirable if we in practice are to take full advantage of these many new developments. Prior to 1923, we had a fairly good understanding of the clinical features of thyroid disease. We also had a good understanding of the microscopic and gross pathology of thyroid disease. We had little knowledge of the normal and abnormal physiology of the thyroid gland. Our treatment was quite deplorable. The patient and his doctor had a choice of bunglesome surgery or procrastinative medicine.

Plummer's contribution regarding the use of iodine resulted in a new era of treatment. With iodine mild cases could be brought and kept under control and the majority of severe cases could be brought into remission and so made safe for surgery. To most of us this was satisfactory treatment and we were content with what we were able to accomplish. Many clinical observations were not fully explained; fortunately, the research worker continued on his way. More was learned about all the glands of internal secretion and more about their relationship to each other and to the body of the whole. Increasing importance was attached to the control of the hypothalamus. The master gland position of the anterior pituitary was more fully appreciated. Much more was learned about many hormones and anti-hormones and their effect on the body chemistry and body metabolism. More was learned about iodine, its assimilation, its storage, and its effect. This, in short, has led to a much more satisfactory, although still incomplete, understanding of the relationship of the glands of internal secretion and their hormones to iodine, to the thyroid gland, and to body metabolism. Certainly we are still far from our goal. An ideal treatment for Graves' disease has not been attained. Thyroid disease is a result of altered physiology with resulting anatomical changes. Its ideal treatment will be a correction of this altered physiology and all information indicates that this will be some correcting chemical substance and not surgery.

Our present day concept of the normal physiology of the thyroid gland is quite simple and should be kept clearly in mind while considering thyroid disease. The hypothalamus exerts a controlling effect over the anterior pituitary. A thyroid stimulating hormone is produced in the anterior pituitary and passes into the general circulation. This hormone has a stimulating effect on the thyroid gland. It causes the epithelium of the acini to use iodine. The iodine is combined with protein to form thyroglobulin which is stored in the follicle. From this reservoir of thyroglobulin, thyroxin is delivered to the blood stream and acts to stimulate metabolism within the many body cells. Thyroxin serves to set the pace of the intercellular fire for the consumption of oxygen, fatty acids, and glucose and so controls the production of heat and energy. The thyroid hormone also exerts a depressing effect on the anterior pituitary. The thyroid gland has a remarkable ability to store iodine and is the only organ in the body which has this ability. If this content decreases by decreased iodine intake, or assimilation, or increased uses or elimination, morphological changes in the acinar epithelium result. Thyroid stimulating hormone causes a decrease in thyroglobulin and an increase in blood and urine iodine.

The all important disease of the thyroid gland is Graves' disease. I think it helpful to look on Graves' disease as consisting of three types or parts — hyperthyroidism, goiter, and exophthalmos. They are by no means constant manifestations of the disease, although of similar etiology and usually shading into each other.

The etiology of hyperthyroidism is unknown. The normal physiology becomes pathologic, the hypothalamus now exerts an increased stimulating effect on the anterior pituitary. The anterior pituitary liberates an increased amount of thyroid stimulating hormone. In response, the thyroid forms an increased amount of thyroxin, iodine is depleted, and resulting histological changes occur in the epithelium of the acini. The excess thyroxin stimulates metabolism and acts as a toxic agent. The burning of glycogen, fatty acids, and oxygen within the cell increase. The basal metabolic rate is increased and there is widespread general tissue increased activity resulting in the many classical symptoms of hyperthyroidism. The increased thyroxin exerts a depressing effect on the anterior pituitary and may bring about the remission of various degrees.

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*Read before Annual Session of the Nebraska State Medical Association, Lincoln, May 8, 1946.

It appears quite certain that excess thyroid stimulating hormone is responsible for exophthalmos. This results from contraction of the conical sheath of smooth muscle or, more likely, the swelling of the orbital structures. It is much more frequent in males. This manifestation of Graves' disease may occur with or without hyperthyroidism. Treatment for this condition is aside from treatment of hyperthyroidism. It is made worse in most cases by thyroidectomy and helped by the administration of thyroid extract. In other words, it is helped by neutralization of thyroid stimulating hormone.

Little need be said regarding the diagnosis of typical Graves' disease. It should be mentioned, however, that confusion is likely to arise in older persons, particularly women, presenting only cardiac symptoms and an increased basal rate. Also the usual toxic symptoms may be replaced by a deceptive mask of mental and physical sluggishness.

The treatment of toxic goiter has become more complicated. Fundamentally, it consists of an effort to break this chain of abnormal events and restore a degree of normality. Treatment may easily be divided into (1), general measures; (2) drugs that have a specific action; (3) irradiation; (4) the preparation for surgery; and (5), surgical removal.

General measures are important. Emotional states, acting through the hypothalamus, are definitely a factor and often are not given sufficient consideration. It is as important to evaluate the person who has the disease as it is to evaluate the disease which the person has. His living conditions, his financial, marital, family, and business problems should be understood and every effort made to reduce emotional strain to a minimum. Physical rest is important. With a greatly increased general body metabolism, further increase associated with physical exertion is undesirable. Diet is of particular importance. There is an increased consumption of food as well as oxygen and, as a result, a diet high in caloric value, especially in carbohydrates, proteins, and vitamins, is needed. This will go far to prevent excessive loss of weight and widespread degeneration of essential body tissues.

The existence of tachycardia in hyperthyroidism is not an indication for digitalis administration. This type of tachycardia with or without fibrillation does not, as a rule, respond to digitalis therapy because it results from excess thyroxin, rather than myocardial insufficiency. However, if heart failure exists, the indications for the use of digitalis are not altered by thyrotoxicosis. Quinidine is often indicated and useful in auricular fibrillation and other cardiac irregularities associated with hyperthyroidism. Barbiturates should be used in a judicious manner. They are useful to decrease worry, lessen excitability and decrease muscular activity. Care should be used as undesirable reactions are not uncommon in hyperthyroid patients. Morphine may be needed in severe cases for its sedative effect, the dose needed is less than when pain is present. Also, the marked sensitivity to morphine which is not uncommon in hypothyroid patients should be mentioned.

As to drugs which exert a specific action, the iodine content in the thyroid gland varies directly with the amount of colloid and inversely with epithelial hyperplasia. Consequently, hyperplastic goiters respond favorably to the administration of iodine in iodine-depleted state. This is true of the simple goiter as well as the toxic type. The increased amount of iodine leads to a more normal thyroxin, a decrease in hyperplasia, and an improvement in general symptoms. This may be the only type of treatment necessary for simple goiters in the hyperplastic stage and may, in mild cases of toxic goiter, bring about a prolonged and probably permanent remission. In the more severe cases, a complete or partial remission usually occurs. Often the prolonged use of iodine in the severe cases is not curative and, if used over a long period of time, ceases to produce any definite favorable effects.

During the past few years, thiouracil has been available. Thiouracil acts in that it blocks the entrance of iodine into the acinar epithelium. In this way it is similar to a "medical thyroidectomy" and it is less corrective from a physiological standpoint than iodine. By blocking the entrance of iodine, it inhibits the formation of thyroxin. Thiouracil will, almost in every case, bring about a prompt remission; however, in cases where there is a large storage of thyroglobulin within the thyroid gland, this supply must be used and the response to thiouracil may be delayed for many weeks. This is especially true in patients who have been treated with iodine or who have large nodular goiters. Thiouracil causes the thyroid gland to become hyperplastic with an increase in vascularity. Continued use of the drug will maintain the patient in a permanent state of remission in almost all cases; consequently, it is believed by many to be the most satisfactory method of treating hyperthyroidism. In many cases after the disease has been controlled by thiouracil over a period of several weeks or months, the drugs may be discontinued and relapses may not occur. In others, after a varying period of time, the picture of hyperthyroidism again develops and the drug may again be used. It will exert the same effect as when first given. After a period of time, it may, again, be discontinued and relapses may or may not develop. It is unfortunate that thiouracil is toxic in 5-15% of cases. Toxic effects include a number of comparatively benign conditions among which are transient leukopenia, skin rashes, fever, peripheral edema, jaundice, nausea, vomiting, diarrhoea, pruritus, and joint and muscle pains. It has been reported that the fetus of thiouracil treated patients develop thyroid hyperplasia, the ultimate effect of which is problematic. The most serious complication is agramulocytosis which, fortunately, has been an uncommon experience. It has, in a number of instances, been fatal even though the case was kept under the most strict observation and prompt treatment given when the agranulocytosis developed. Toxic effects are most likely to occur during the first few weeks of treatment. Thiouracil is administered by mouth. The usual initial dose is from .4 to .6 grammes daily, usually in divided doses of .2 grammes. As soon as there is systemmatic improvement and a decrease in the basal metabolic rate the dose should be reduced and further reduction made as the general picture indicates. Rarely should the initial dose be continued for longer than two weeks. Many cases, after the first few weeks, can be maintained on a dose of .1 to .2 grammes daily. It should be kept in mind that overdose is capable of producing myxedema. The drug should be discontinued with the appearance of severe toxic effects. The white cell count should be carefully watched as well as the differential count. A decrease in the percentage of neutrophils or a shifting of the neutrophils to the younger type is a definite indication for permanent discontinuance of the drug. Should agranulocytosis develop, prompt treatment should be given. This should consist of adequate doses of penicillin to prevent oral sepsis and repeated blood transfusions. Astwood has recently reported that propul thiouracil is four times as effective and one tenth as toxic as thiouracil. This or even further improved drug may soon be available.

Irradiation exerts a depressing effect on thyroid activity. This method of treatment continues to be of definite value in special cases. The use of radioactive iodine theoretically is sound because of the pronounced storage of iodine in the thyroid. Almost uniformally good results have been reported to occur 60 days after treatment. There has been no evidence of parathyroid tetany, however, the usual "x-ray sickness" may occur.

As to the preparation for surgery. In many cases, especially in the mild cases, iodine alone is completely satisfactory and this time proven method should not be too quickly abandoned. In the more severe cases and the cases which have not responded to iodine, thiouracil should be used. It may be needed over a considerable period of time, especially if iodine has been used. Thiouracil is indicatd pre-operatively especially in severe thyrotoxicosis where a post-operative storm is feared. In these cases this reaction can be prevented or lessened by thiouracil effect. Also the thyrocardiac is less likely to have complication with surgery if prepared with thiouracil. The fact that thiouracil causes a hyperplasia and increased vascularity of the gland is an objection to its use for surgery, however, if iodine is administered with thiouracil immediately pre-operative or, better still, if thiouracil be discontinued and iodine given alone for a period of several days pre-operatively, this objectionable feature is remedied. As to immediate pre-operative medication, scopolamine with its sedative and tranquillizing effect is a better cholinergic drug than atropine.

In conclusion, iodine may be curative in many mild cases and offers distinct advantages in pre-operatively controlling increased vascularity in thiouracil treated cases.

Thiouracil will effect remissions which may be lasting and so amount to a cure. It is the most efficient way of producing preoperative remission. It offers a quite satisfactory method of treating hyperthyroidism where surgery is contraindicated and where surgery has failed to relieve thyrotoxicosis.

Because of the dangerous complications which may occur with thiouracil, surgical removal still constitutes our best and safest method of controlling the disease in the majority of cases at the present time. This statement is subject to revision.

Every case of thyroid disease needs individual consideration. The surgeon and internist must be cooperative and broad minded. Both must understand the patient and his disease and so offer him the best treatment possible for his particular case.

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60 PER CENT OF 4,666 MEDICAL SCHOOL FRESHMEN ARE WAR VETS

The American Medical Association announced today that 60 per cent of the 4,666 students who have been selected as freshmen to enter medical schools and schools of basic sciences in the United States in 1946 are war veterans.

The freshman students selected up to June, 1946, included male veterans 2,816 (60 per cent), physically disqualified men 501 (11 per cent), occupationally deferred men 312 (7 per cent), men under 18 years 41 (1 per cent), other men 429 (9 per cent) and women 567 (12 per cent).

These figures were contained in the 46th annual report on medical education in the United States and Canada by the Council on Medical Education and Hospitals of the American Medial Association. The report is published in the August 17 issue of The Journal of the American Medical Association.

Victor Johnson, M.D., secretary of the council, who prepared the report with the assistane of F. H. Arestad, M.D., and Anne Tipner, said that the large number of war veterans in this year's class "must be attributed to the unexpectedly short time which elapsed between V-E day and V-J day and the consequently rapid demobilization of the Army and Navy."

Commenting on the veteran admissions, Dr. Johnson raised these questions:

"How many of them were rejected for admission to medical schools before entering military service? Do they possess sufficient motivation in medicine to meet the rigorous demands of the study of medicine? Only time will answer these questions."

Continuing, his report said:

"Every one would be pleased should the answers prove favorable to the veterans, not merely for the sake of the veterans themselves, but also in terms of the future medical care of the people. Admission of a student to medical school is the first step in that person's being given the serious responsibility of guarding the life and health of his patients. Such admission, therefore, is a serious responsibility of the medical schools.

"The proportion of women admitted to 1946 freshmen classes is less striking than might have been anticipated. Twelve per cent of those admitted are women, including 20 veterans. In the past 40 years there never has been an enrollment of as many as six per cent women in all four classes of our medical schools.

"The medical shools in this country, having seleted 4,666 students for the 1946 entering class, state that 1,079 remain to be selected to complete the projected freshman class. This indicates that the freshman class will number about 5,745. If this number is not exceeded before classes open, this year's freshman enrollment will be the smallest in 17 years.

"Whether the 1946 class will be filled remains to be seen. Almost all schools hope to fill their 1946 freshman class and, in general, they judge the qualifications of those admitted to be about the same as those of freshman students before the war.

The council report said that by June 1, 1946, all but five of the four-year medical schools had completed the three-year cycle of four graduating classes under the accelerated program which was in effect during the war years. Both the Army specialized training program and the Navy V-12 program have been discontinued.

"It is regrettable that the educational experiment of acceleration could not be carried out under more favorable conditions," the report said, adding: "There is a tendency to ascribe all the deficiencies of wartime medical education to the accelerated program. Other important deleterious influences were operating entirely independently of acceleration in the medical schools. Among these were shortages of teaching staff, increased enrollments, inadequate premedical preparation and a state of uncertainty in the minds of students as to their future. Could the experiment have been conducted in the absence of these variables, perhaps the reaction against acceleration would not be less widespread."

The council said that by 1947, at which time all scheduled extra graduations will have been completed, the wartime medical school program will have produced an estimated extra 7,214 physicians.

"The effect of this program on the outcome of the war cannot be stated in other than general terms," said the council, "but it is clear that this effort was a major contribution by the medical schools and their depleted and overworked facilities."

Gastro-Intestinal Allergy*

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There has always been some reluctance on the part of physicians to diagnose vague gastro-intestinal complaints as being allergic. In some instances, as when the patient knows that a food such as milk causes diarrhea, or when the eating of some fruit such as bananas causes heartburn, the diagnosis of a gastro-intestinal sensitivity is easy and is obvious. The physicians may suspect that the bloating, belching, and distress of his patient may have a food or foods as their basis, but he has felt that he has had no way of proving it, and has instructed his patient with generalities to avoid foods which appear to cause distress. Skin tests have not aided the physician in the problem of gastro-intestinal sensitivity to any marked degree; however, improved methods of observation have led to the discovery of the etiology of many foods causing gastro-intestinal allergy.

The symptoms of gastro-intestinal allergy can express themselves as pathological and physiological disturbances at any site in the course of the gastro-intestinal tract. The higher lesions, as in the mouth and on the lips, may show manifestations of cheilitis, herpes, gingivitis, periodontoclasia, and canker sores(1). The oesophagus and stomach may act in spasm or ulceration in abnormal response to an ingested food. Certainly, the bowel, as expressed by abdominal distress, or by acute episodes of pain on occasion resembling an acute surgical abdomen(2), or by spastic and mucous colitis, is the site of response to allergens. I have seen spasm of the bile ducts with symptoms resembling acute cholelithiasis due to the ingestion of milk. The lower site of gastro-intestinal allergy, at the anal orifice, may cause uncomfortable pruritis ani or stain clothing on the basis of abnormal rectal secretions.

Some students of this disease maintain that allergy of the gastro-intestinal tract is more common than all other allergies(3). It is true, of course, that not all gastro-intestinal complaints are allergic in origin. Organic disease must first be eliminated by thorough physical examination and Roentgen study. Functional gastro-intestinal disease is very prevalent; in fact, the majority of patients who enter a doctor's office with gastro-intestinal complaints have their distress on a functional basis—psychosomatic in origin. The possibilities that abdominal symptoms are allergic are increased if the patient, on being questioned, is found to have other known sensitivities, such as hives or asthma. It is well to suspect an allergic background if numerous medications have been given to the chronic case without success. It has been a common experience to see an irritable bowel improve considerably following the elimination of the cigarette smoking habit. Periodic acute abdominal pain in children(4), canker sores, pruritis ani, chronic constipation—in all of these and in others the allergic cause should be kept in mind.

All the syndromes of abdominal allergy cannot be covered in one paper; however, a few of the more common allergic manifestations which are seen in the daily practice of physicians will be discussed in some detail; namely: canker sores, pruritus ani, and the group of vague abdominal distress symptoms which are of allergic etiology.

SYMPTOMS OF GASTRO-INTESTINAL ALLERGY

CANKER SORES

Medical literature is meager concerning the relationship of canker sores to allergy. There are numerous stated causes for these aphthous ulcers of the mouth. Canker sores have been produced by the use of the rubber dam in dentistry, by trauma to the mouth from an external blow, or by the scratch of a toothbrush. In recent studies, canker sores have been grouped with the lesions due to the herpes simplex virus(5). Allergy to foods is a major cause of canker sores.

Canker sores may be acute or chronic. The acute canker sore, if on an allergic basis, is due to the ingestion of a food taken at infrequent intervals by the patient. Almost all foods have been incriminated in the etiology of acute canker sores. Such odd foods as ginger, pecans, beans, melons, and strawberries have been seen to bring out acute episodes of canker sores. Chronic canker sores may exist to the degree that there is practically no freedom from the constant recurrence of the mouth lesions. In the chronic case the common dietary items—wheat, egg, milk, and chocolate — are the most likely offenders. Skin tests in determining the causes for canker sores have little or no value. Elimination diets and careful dietary diaries are of most value in determining the causes of this affliction. The use of thiamin or of the entire "B" complex has successfully prevented these lesions in certain cases. Repeated smallpox vaccination may be effective in preventing recurrences. The avoidance of the specific food when it is determined is the best means of eliminating these ulcers.

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*Read before the Annual Assembly of the Nebraska State Medical Association in Lincoln, May 6-9, 1946.

ALLERGIC ABDOMINAL DISTRESS

Sensitivities to foods may induce many and varied abdominal symptoms. Ingested foods cause by far the majority of gastro-intestinal allergic reactions. It is known, however, that inhaled substances, such as pollen or smoke, can, by the blood stream, reach a specific abdominal site and set up allergic response. Drugs, and recently, intestinal bacteria have been shown to act as allergens.

In listening to the complaints of a person afflicted with gastro-intestinal allergy, it is common to hear many expressions of abdominal discomfort. The allergic abdomen expresses itself by symptoms of excessive gas formation, bloating, heartburn, the tasting of food hours after it had been eaten, by variable pain, and by numerous other manifestations. Accompanying these, systemic complaints of physical fatigue, headache, nervousness, mental depression, and others are usually present. One or many foods may produce gastro-intestinal distress.

It is not unusual to cite cases as the following: A young lady has experienced severe heartburn, especially in the forenoon; removal of coffee from her diet eliminated the symptoms completely.

A middle-aged woman complained of severe constipation, a constant feeling of distension, and of excessive gas formation. She had been previously examined thoroughly by Roentgen study, and the eitology of her difficulties was given as a spastic colon. In reality she had a spastic bowel, but the disturbed physiology was due to several foods; in this case the removal of milk, pork, and most fish remarkably altered her constipation and her distress symptoms.

A young man had suffered with periodic headache for many years. There was a constant marked physical fatigue, and on occasion, mild hives or pruritus would exist. His gastro-intestinal symptoms had caused him to avoid milk which he suspected added to his constipation. However, not only milk was found to activate his illness, but when eggs, coffee, and chocolate were eliminated, his improvement was decided.

The acute attack of allergic abdominal distress is most commonly caused by nuts or shellfish, although any food may be an offender. The foods most commonly incriminated in chronic abdominal food allergy are wheat, oranges, eggs, beef, milk, tomato, white potato, chocolate, and coffee.

PRURITUS ANI

The role of allergy in accounting for pruritus ani has been but meagerly considered in medical literature. Among proctologists there has been some acknowledgement that diet can play a part in causing itching in the perianal region. However, the allergic etiology of pruritus ani has been far down on the list of causes when the causes of this affliction have been considered. The classification by Cantor(6) of the causes of pruritus ani is as follows: local rectal causes cryptogenic pruritus ani, psychogenic, traumatic, parasitic, thermal, chemical, general metabolic, and allergic.

A recent paper by F. A. Rugeley(7), presented fourteen cases of pruritus ani, all with an allergic etiology. By using skin and patch tests, elimination diets, food diaries, and trial and error investigation, he found that the variety of foods which produced the symptoms was numerous and varied. Proved cases of fish, beef, avocado, figs, chicken, beans, rice, potatoes, and others were described in detail.

DIAGNOSTIC METHODS IN GASTRO-INTESTINAL ALLERGY

There are many types of antibodies. Among those heard of frequently are agglutinins, precipitins, opsonins, hemolysins, and numerous others. Four types of antibodies chiefly concern the field of allergy, namely, reagins, precipitins, the blocking antibody, and the muscle sensitizing antibodies of Dale. A precipitin is an antibody capable of being demonstrated by the precipitin reaction. At one time, no precipitins were found in the sera of allergic persons.

By coating collodion particles with antigen, Cannon(8) by a refined technique was able to demonstrate precipitins in the sera of atopic man. Cohen(9) applied this principle in demonstrating the presence of precipitin in the sera of pollen sensitive patients who responded successfully to hay fever desensitization. The blocking antibody is the newest in the field of allergic investigation. Considerable discussion and research is now being carried out in order to determine its properties of binding antigens. The muscle sensitizing antibodies of Dale are utilized experimentally in allergy in contracting uterine strip musculature. By far, the antibody receiving first attention in allergy is the reagin. A reagin is a specific antibody in the serum of allergic individuals, which, when injected intradermally in a normal skin, produces a local area of sensitivity; when the same antigen is injected into this area several hours later, a positive reaction takes place. The reagin mechanism is known as the "passive transfer test" or the "Prausnitz-Kuestner" reaction(10). The reagins are often called "atopic reagins," and the definition of the term "atopy" is often known as "allergy in which reagins can be demonstrated." At the present time, probably the best definition of atopy is that used by Vaughan: "A group of allergic diseases that are subject to a common hereditary influence and in which atopic reagins are often demonstrable." Chief among the atopic diseases are bronchial asthma, hay fever, and atopic eczema.

Gastro-intestinal allergy is not one of the atopic diseases. Reagins are not usually demonstrated. Arthur Coca, through keen observation of this non-atopic type of allergy, has termed an entire group of allergic sensitivities, "Familial Nonreaginic Food Allergies." By repeated and consistent observations, he has found that one of the characteristics of this group is that the allergic reaction practically always causes an acceleration of the pulse. By observing the pulse rate before and after the ingestion of a specific food, under conditions in which no other factors could accelerate the pulse, he has devised a method which has practical application in the diagnosis of non-atopic allergies.

COCA'S ACCELERATION OF THE PULSE METHOD IN NON-REAGINIC ALLERGIES(11)

Foods causing allergic gastro-intestinal symptoms in most cases accelerate the pulse. The patient who is suspected of having gastro-intestinal symptoms is observed for several days until his average low pulse rate is ascertained. During these several days of observation, if it is noticed that the patient has a wide pulse range (20 or more), or a high pulse rate without cause (90 or more), the allergic aspect of the patient's distress is substantiated. On the day of testing, the pulse rate is observed before rising; a single food is eaten in a moderate quantity; and the pulse rate is observed every half-hour for several hours. If the pulse increases 16 or more, evidence to the sensitivity of the food ingested is established. From one to six foods can be tested a day. If there is no increase in pulse rate at the end of two hours, a second food may be ingested and continued pulse observations made. As non-allergenic foods are identified, they may be included at will in the patient's diet, even during testing. It must be recognized that in food allergy, there is a phenomenon known as the latent period. This is a period of time in which a food may be ingested when eaten at proper intervals without causing clinical symptoms. It is best when making food tests to see that the patient has been on the food for several weeks before specific observations are made. Not only can gastro-intestinal allergy be traced by Coca's method, but such symptoms as headache, urticaria, rhinitis, allergic fatigue, and many others can be determined by the phenomenon of non-reaginic allergic tachycardias.

SKIN TESTING

In only a small percentage of cases are skin tests of value in determining the causes for gastro-intestinal allergic symptoms. They should be attempted, for if they show some light on the nature of the food allergy, much time is gained in making a diagnosis. There are some who do not even attempt skin tests in gastro-intestinal allergy, as they feel that the entire mechanism is nonreaginic.

ROWE'S ELIMINATION DIETS(12)

There are many elimination diets used for the purpose of tracing the etiology of food allergies. Some are positive—those that designate the food to be eaten; some are negative—those that eliminate specific items or groups of foods from the diet. As wheat, eggs, and milk comprise a high percentage of foods causing allergic distress, most diets eliminate these substances at the onset. Rowe's diets are the ones most generally used now. Originally, there were five diets with biologically related foods in all diets. Now, there are four diets, with biologically related foods in only one diet. Milk, wheat and eggs are eliminated from the first three of the diets, with milk alone being allowed in the fourth diet. If allergic symptoms disappear on the diet prescribed, additional foods are added until distress reappears.

Other dietary methods follow essentially the scheme known as the escalator program. Skin tests are performed; the positive reactors are eliminated; one or two foods at a time are added until symptoms reappear.

There are both advantages and disadvantages in using elimination diets alone to recognize food allergies. One drawback, after the patient has been symptom-free and introduces foods back in his diet, is the difficulty in knowing which is the offending food. It is known that by eliminating an item of food for a certain length of time, tolerance will be gained towards that food, so that it may be ingested in limited quantities without difficulty. For example, a person may be sensitive to apples; when the apple season arrives he may be able to eat apples every other day without distress, but as soon as he ingests them two a day, his tolerance breaks down, and he develops, for example, his bloating or his migraine headache. A second drawback is that there are some persons with a low tolerance towards the prolonged ingestion of a single food or foods. Their "inherent tolerance" to the prolonged use of a food is low. The constant use of a new food in replacing the old may introduce a new active allergic state. In such cases the use of the restricted diet often increases the patient's total number of allergies.

RINKEL'S CLINICAL APPLICATION OF INDIVIDUAL FOOD TESTS(13, 14)

The basis of Rinkel's method for determining food allergy is the demonstration of a specific allergic reaction by deliberate ingestion of a food. In the performance of his deliberate feeding tests, both objective and subjective studies are made. The patient is observed for all allergic symptoms which could possibly occur; gastro-intestinal symptoms, nasal symptoms, chest symptoms, skin symptoms, and others, such as extreme fatigue and chilling sensations. The pulse rate and leukocyte count are routinely taken several times during the performance of the test. In addition, on occasion, the blood pressure may be taken, and in the thermal type of allergy the patient may be subjected to chilling with the test. The standard technique employed by Rinkel is first the ingestion of the food to be tested for at least two weeks preceding the test; the ommission of the food completely from the diet for four days; and the testing of the food on the morning of the fifth day. Assuming the food to be tested is milk. Actually a person has milk in some form or other in the diet constantly. Milk in all forms is eliminated for four days; on the morning of the fifth day, the patient appears in the office, and he is observed closely for a half hour. Each of his symptoms is recorded on a special chart. He is given his first feeding of milk and is observed for one hour; he is then given his second feeding of milk and is observed for another half hour. Statistics are kept on his symptoms, his pulse variations, and on his white blood count. If, while the patient is at complete rest, an alteration occurs in any of these factors, the specific food etiology has been determined.

There are many advantages in the use of this method of determining food allergies. Primarily, it seeks to reproduce the patient's clinical allergic symptoms while the patient is waiting in the office. Its accuracy is 85% or better. While waiting for the clinical response, it employs both the rapid pulse reaction of Coca, and the procedure known as the leukopenic index. The latter is the drop in the white blood count of 1,000 cells or more after ingestion of a food. The evaluation of the leukopenic index by itself is not great, but combined with these other factors it fits in well as a diagnostic procedure.

A second major advantage is that this method recognizes the cyclic nature of food allergy. Unless a patient has a fixed sensitization—that is, a single ingestion of food still producing symptoms after abstinence for many years—his food sensitivities will be cyclic or intermittent. By cyclic food allergy is meant the presence of symptoms with the use of the food, tending to disappear with the omission of the food. By placing his patient on a food for two weeks prior to testing, Rinkel removes the possibility of testing during a period of tolerance to the food. Many cases of food allergy are "masked," that is, a food being used daily causes constant difficulty but is never suspected as a cause of symptoms. For example, a patient sensitive to wheat wheezes at two o'clock every morning. By eliminating the specific food to be tested for four days, and then testing with the food, this masked food allergy is brought into the open, and a deliberate allergic attack can be precipitated.

TREATMENT METHODS IN GASTRO-INTESTINAL ALLERGY

ELIMINATION OF FOOD OFFENDERS

There is no doubt that the simplest method of caring for food-sensitivities is the elimination of the offending foods. This is relatively easy if the number of foods is not too numerous, or if not too many of the basic foods are included. By experience, the patient can determine his tolerance to his offenders. If almost all foods sooner or later cause distress, care must be taken in acquiring new sensitivities.

RINKEL'S ROTARY DIVERSIFIED DIET

This method allows the patient to ingest a food every second or third day. The method is particularly applicable to those with low inherent tolerances towards foods. If no sensitivity to a food exists, but if it is suspected that repeated ingestion of a food will finally cause a loss in tolerance to it, the taking of a food only at two or three day intervals will act as a prophylactic towards the loss of tolerance to the food. If numerous foods are considered in this light, then a program of diversification and rotation of foods must be ordered. It is routine among several men doing pediatrics, to prescribe these rotary diversified diets to all children who have any food allergy whatsoever.

URBACH'S PROPEPTANES

Oral desensitization by means of propeptanes has been given thorough study by Urbach(15). Propeptanes are derived from individual proteins by digestion with hydrochloric acid, pepsin, and trypsin. They contain chiefly proteoses, but also contain peptanes, simple peptids, and amino-acids. Specific propeptanes are given on an empty stomach 45 minutes before meals. The average treatment with propeptane capsules is two to three weeks. The procedure allows the ingestion of allergenic foods in some instances without distress. There are some(16) who feel that the feeding of peptone alone can desensitize against foods.

OTHER FORMS OF THERAPY

Almost all medications have at some time or other been used in the treatment of gastro-intestinal allergy. As symptoms may involve any site in the gastro-intestinal tract, treatment has usually been directed towards local relief of the site involved. Preparations containing anti-spasmotics, sedatives, digestive enzymes, and others have all seen use in therapy. The newer anti-histamine drugs, benadryl and pyribenzamine, are still being observed in their relationship to the gastro-intestinal function.

SUMMARY

1. Food allergy, especially in its gastro-intestinal form, is more commonly non-reaginic than atopic.

2. Any site in the gastro-intestinal tract may act allergically in response to antigenic foods.

3. Improved methods for determining the food offenders in gastro-intestinal allergy have been observed and successfully utilized. Among these are the procedures advocated by Rinkel and by Coca.

REFERENCES

1. Beecher, W. L.: Canker Sores in the Mouth. Clin. Med. & Surg., 35:903, 1928.

2. Prickman, L. E.: Acute Abdominal Allergy. Surg. Clinics N. A., Aug., 1937, p. 1005.

3. Rowe, A. H.: Gastro-intestinal Food Allergy. J. Allergy., 1:172, 1930.

4. Ratner, B.: Abdominal Pain in Children Due to Allergy. J.A.M.A., 127:696, 1945.

5. Burket, L. W.: Oral Medicine, p. 146, Philadelphia, J B. Lippincott Co., 1946.

6. Cantor, A. J.: Pruritus Ani. Am. J. Dig. Dis., 10:254, July, 1943.

7. Rugeley, F. R.: Allergic Causes of Pruritus Ani. Paper given at meeting of Southwest Allergy Forum, April, 1946.

8. Cannon, Paul R., and Marshall, Chas. E.: An Improved Serological Method for the Determination of Precipitative Titers of Antisera. Journal of Immunology, 38:5, May, 1940.

9. Cohen, M. B., and Weller, R. R.: Precipitins in the Sera of Patients with Clinical Allergy. J. Allergy, 12:3, March, 1941, p. 242.

10. Sulzberger, M. B.: Dermatologic Allergy. p. 79, Springfield, Ill., C. C. Thomas Co., 1940.

11. Coca, A. F.: Familial Non-Reaginic Food Allergy, Springfield, Ill., C. C. Thomas Co., 1940.

12. Vaughan, W. T.: Practice of Allergy. P. 318, St. Louis, Mo., C. V. Mosby Co., 1939.

13. Rinkel, H. J.: Food Allergy. Annals of Allergy, March, 1944.

14. Rinkel, H. J.: Food Allergy. Annals of Allergy, 2:504, Nov., 1944.

15. Urbach, E.: Oral De-Allerization of Food Allergy with Propeptans. Arch. Ped., 61:184, 1944.

16. Feinberg, S. M.: Allergy in Practice. P. 728, Chicago, Ill., Year Book Pub., 1944.

Venereal Disease Control in a Rural Area

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One of the major problems of most health departments is the control of the venereal diseases. This is true in rural areas as well as in the cities. Syphilis and gonorrhea are considered the most important venereal diseases from the public health point of view.

In this report an attempt will be made to relate some of the work in venereal disease control which was carried on over a two-year period in a rural area in Southside Virginia. Two adjoining counties will be considered which have a total peacetime population of 30,505. The wartime change in population increased this figure greatly so that accurate information is not available from which an estimate can be made as to the population during the two-year period considered here. Approximately 53 per cent of the population is white, and 47 per cent is Negro. The two counties cover 665 square miles. A large army camp was built in one of these counties early in 1942. The other county is included in this study because of its proximity to the camp and also because many venereal disease contacts of military personnel resided in this county.

The first part of this report will concern the number of treatments given for gonorrhea and syphilis in the two counties during the time of this study.

The four largest towns in this area have peacetime populations of approximately 3,500, 2,500, 2,000, and 600 respectively. In the following tabulations these towns will be referred to as A, B, C, and D in the order listed.

Table I shows the number of treatments given for gonorrhea and syphilis in the four towns during the calendar years 1942-1944. It will be noted that the number of treatments given to syphilis patients went up in 1943 and back down in 1944. This is true for all towns except C, which is one step behind the others since the clinic was not started there until 1943. A full-time venereal disease control officer was assigned to this area in September, 1942. This office was maintained during the entire years, 1943 and 1944. There are probably several reasons for the greatest number of treatments being in the year 1943. One of these is that during this period the Selective Service Boards in this area were rejecting a large number of men for syphilis and these were being treated in the clinics concerned here. During the year 1944 many of these were taken into the army, either as having had sufficient treatment or as untreated venereal disease cases. This also accounts for the drop in treatments in 1944. Another reason for the high figures for 1943 is that the venereal disease control program around the army camp in this area was being conducted very vigorously and although it was being carried on with the same vigor in 1944, there were not so many cases to be treated. This is believed to be evidence that the control measures used were producing some lowering of the numbers of cases of syphilis in the area concerned. A third reason for the decreased number of treatments for syphilis is the fact that the treatment schedules used in the latter half of the year 1944 called for fewer treatments than the ones used in the year 1943.

It is of interest to note also that the number of treatments given for gonorrhea decreased in towns A and D, but increased in towns B and C in 1944, over the 1943 figures. Town C will not be included in the generalizations for reasons mentioned earlier. Town B was closer to the army camp than the other towns and more cases of sulfonamide-resistant gonorrhea were found there than in the other towns. This may explain the reason for the increased number of treatments found necessary for gonorrhea in this town. It is believed that the reduction in treatments needed for this disease in towns A and D showed some degree of success in venereal disease control in this area.

TABLE I

TREATMENTS GIVEN 1942-1944

	Town A		Town B		Town C		Town D	
Year	Syph.	G.C.	Syph.	G.C.	Syph.	G.C.	Syph.	G.C.
1942	3032	151	3559	91	----	----	1557	58
1943	4327	556	6420	527	2492	85	2761	90
1944	3290	410	5238	693	3279	175	1118	60

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The second part of this report will deal with the handling of venereal contacts of military personnel who were thought to be residing in this area.

During a large portion of the time covered by this study there was a full-time venereal disease control officer stationed at the army camp located in this area. This officer and the district venereal disease control officer, along with the health officer in charge of the district, worked together in trying to locate, examine, and treat all venereal disease contacts residing in the area who were named by military personnel. This was not limited to contacts named by personnel in the camp located in the area, but a few contact reports were received from camps in other states. One full-time venereal disease public health nurse and four general public health nurses who gave part time to this work assisted in the contact investigation, follow-up, examination, and treatment of these patients.

Table II shows the number of contacts of gonorrhea and syphilis named by military personnel each month as residing in the area here concerned. These sex contacts were named and/or described by diagnosed males who had either gonorrhea or syphilis. This table also shows the number of contacts located and also the number found infected for each month of the study. It will be noted that in some months more contacts were located than were named during the month. This is caused by some contacts named one month being located during subsequent months. Usually, if the contact was not located during the month in which she was named, she wos located during the following month; however, some cases were kept open ninety days. From the totals given at the bottom of the columns, it will be noted that 394 (83%) of the 473 gonorrhea contacts named, and 301 (88½%) of the 340 syphilis contacts named during this period of study were located. The term "located" here is understood to mean that the contact was brought to examination and it was determined whether or not she was infected. Eighty-nine percent, or 352 of the 394 gonorrhea contacts located, and seventy-one percent, or 214 of the 301 syphilis contacts located, were found to be infected. In order for a contact to be considered infected with gonorrhea, she was required in this series to present positive spreads and/or cultures for gonorrhea; and in the case of the syphilis contacts, positive darkfield examinations and/or positive serologic tests for syphilis were required as proof of infection.

TABLE II

MILITARY CONTACTS BY MONTHS

			Number of Contacts			
	Named		Located*		Infected	
	Gonorrhea	Syphilis	Gonorrhea	Syphilis	Gonorrhea	Syphilis
1942—						
September	8	19	8	7	3	3
October	22	11	18	11	10	10
November	12	14	16	15	15	10
December	23	9	21	11	19	11
1943—						
January	27	17	22	12	20	6
February	11	13	11	9	7	11
March	20	16	16	14	18	8
April	33	19	25	11	21	5
May	23	16	15	13	19	10
June	19	16	18	5	15	9
July	21	7	17	15	18	12
August	31	18	16	7	17	6
September	19	13	13	11	13	9
October	18	19	14	10	13	6
November	18	14	15	11	18	7
December	29	17	23	15	21	13
1944—						
January	26	25	26	21	23	18
February	33	13	24	12	16	10
March	9	11	11	25	9	16
April	20	26	14	28	12	12
May	27	14	25	20	22	8
June	24	13	22	18	23	14
Totals	473	340	394 (83%)	301 (88½%)	352 (89%)	214 (71%)

*It will be noted that some months show more contacts located than were named during the month. This is caused by some contacts being named one month and located during subsequent months since some cases were held open as long as ninety days.

COMMENT

The area considered in this study, and the figures presented here have been included in other reports which covered a large area of the United States, but the work was not presented in detail(1, 2, 3). The type of form on which we received the contact information used in this report has been discussed in the papers referred to above. Many of the military contact reports which were received contained such meagre information that an investigation was not attempted from them until additional information was obtained. However, no reports were discarded or eliminated because of meagre information, but all reports were used in calculating the percentages located which were mentioned previously. It was possible to make many inadequate reports adequate by re-interviewing the patients who gave the original information. On second interview, men were often able to furnish pictures or more recent addresses of the contacts. An opportunity was also afforded on repeated interviews to educate the patient about his disease and its prevention, so that he would avoid subsequent infections. In some cases the patients were taken outside the camp in order that they might point out the house or other place where the contact might be located. These measures, along with extensive knowledge of the geography and usual places of pick-up and exposure in the area, helped materially in locating a high percentage of the contacts named by the military personnel. It will be noted that the percentages of contacts located in this group are considerably higher than the percentages for the larger area as reported by other writers(1, 2, 3). This is probably due in a large part to the fact that the area dealt with here is so very close to the camp that the advantages listed above were enjoyed here, but were not possible for areas beyond a short distance from the camp. An advantage which was found, besides the three already mentioned, was the fact that the contact information was not delayed in reaching the venereal disease control officer outside the army camp. Many times the reports were received by telephone, and all reports were received more quickly than the mail could have brought them. Time is very important when dealing with a transient population such as that found around a large military encampment in wartime. Through the clinic facilities furnished by the Virginia State Health Department in this area, it was possible to get a contact examined at almost any time. Prompt examination for venereal diseases is of great help in carrying on a program of this type.

Conducting a program such as this in a rural area requires an entirely different approach than that necessary in an urban area. Milner(4) outlined a venereal disease program for rural areas in England. Some of the features which he recommended have been used here. Vonderlehr(5) in describing the venereal disease campaign in the Carribbean area emphasizes the fact that the control of venereal diseases cannot be carried on successfully by the health department alone without the support of the public. In the area where this work was carried on, it was necessary to first get the interest and cooperation of the local physicians, service clubs, women's auxiliaries, and law enforcement personnel. This end was attained by personal interviews, speeches, and lantern slide illustrated lectures on venereal diseases.

The contacts dealt with in this report were roughly of three groups such as have been described by another writer(6) in a paper along this same general line. These groups were:

(1) A few local girls who either wanted to have a good time or thought they were fulfilling a patriotic duty;

(2) A small number of professional prostitutes, most of whom drifted to this section from large cities;

(3) The camp followers such as waitresses, soldiers' wives, and so-called "Victory Girls."

The local white girls were not often named as contacts of venereal disease cases in military personnel, but the local Negro girls were one of the most common sources of military contacts. These girls are usually not difficult to find and get under treatment.

The group of professional prostitutes caused very little trouble in this area. This was true for both white and Negro. There are no houses of prostitution in the area studied here.

The highest percentage of the contacts dealt with here belonged in the "camp followers" group. This was true for both the white and Negro contacts.

The contacts reported in Table II have not been divided as to white and Negro; however, the percentages would not vary greatly from those published by Norris, et al(1) in their report for the Third Service Command. Their figures showed 40% white and 60% Negro.

The treatment of the contacts who were found infected with a venereal disease was carried out either in the clinics provided by the Virginia State Health Department or by private physicians. The patients were given their choice as to place of treatment, but in general, the white patients could pay and therefore were treated by private physicians, while the Negro patients were treated in the clinics. These patients received some of the treatments counted in Table I. The local physicians assisted in the treatment of patients in the clinics and were given a small fee by the State Health Department for their services.

No mention has been made in this report of the treatments given for venereal diseases other than gonorrhea and syphilis. The other venereal diseases were treated in the clinics mentioned here, but they were relatively infrequently encountered in the general population of the area, as well as among the military contacts. So because of their comparative rarity they have not been included in this study.

The venereal disease program in this area has been conducted as has been outlined by the U. S. Public Health Service(7). One measure which has been impossible is the rapid treatment of syphilis. This is regretted.

Even though this work has been started as a wartime measure, it must certainly have lasting value. The venereal diseases, especially gonorrhea and syphilis, have been known to be a menace to the public health for many years(8). So it is hoped that their incidence and prevalence may be reduced in both urban and rural areas by a continuation of present programs in the years following the war.

SUMMARY AND CONCLUSIONS

1. Some of the venereal disease control work in a rural area in Southside Virginia, has been related. This work was carried on at a new tempo during the war period because of the establishment of a large army camp in the area.

2. The number of treatments for venereal diseases increased up to a peak as the program was intensified and then the numbers began to decrease, the causes of which are open to speculation.

3. The program worked well in this area due to the close cooperation between the army venereal disease control officer, the Virginia State Health Department, and the local residents of the area. All of these agencies were coordinated through a local venereal disease control officer loaned by the U. S. Public Health Service.

4. Eighty-three per cent of the gonorrhea contacts and 88½% of the syphilis contacts named by military personnel in this area were located. Of those which were located, 89% of the gonorrhea contacts and 71% of the syphilis contacts were found infected. It is recognized that these figures are high, the percentages of contacts located as well as the percentages found infected of those who were located. The location of the high percentage of contacts was thought to be due to (1) the plan of reinterviewing the patients who gave the contact information in order to obtain additional information; (2) the practice of taking the patients outside the camp in order to have their help in locating contacts; (3) short lapse of time between the diagnosis of the patient and the contact investigation; and (4) extensive knowledge of the geography and usual places of contact in the area. The unusual degree of cooperation of the local residents, as well as the military personnel, also helped greatly in the program.

Since the diagnostic procedures employed in this work were standard and the diagnoses were made by physicians who were seeing large numbers of venereal disease cases, it is felt that the figures on the percentages of contacts found infected are probably as accurate as such figures can be.

5. It is hoped that the venereal disease control program will continue in this rural area during the coming years.

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REFERENCES

1. Norris, E. W.; Doyle, A. F.; Iskrant, A. P.: Venereal Disease Epidemiology Third Service Command: An Analysis of 4,641 Contact Reports. Am. J. Pub. Health, 33:1065-1072, 1943.

2. Norris, E. W.; Doyle, A. F.; Iskrant, A. P.: Venereal Disease Epidemiology in the Army Third Service Command: Progress Report for Period January Through June, 1943. Ven. Dis. Inform., 24:283-289, 1943.

3. Norris, E. W.; Doyle, A. F.; Kratz, F. W.; Iskrant, A. P.: Venereal Disease Epidemiology in the Army Third Service Command: Progress Report for Period July Through December, 1943. Ven. Dis. Inform., 25:297-300, 1944.

4. Milner, A. N. P.: A Joint Venereal Disease Service for Three Rural or Urban Districts. Brit. J. Ven. Dis., 20:108-117, Sept., 1944.

5. Vonderlehr, R. A.: The Venereal Disease Campaign with Special Reference to the Caribbean Area. J. Social Hyg., 30:183-186, April, 1944.

6. Hutcheson, R. H.: Public Health Problems in Cantonment and Extra-Cantonment Areas. South. M. J., 37:100-103, Febr., 1944.

7. Heller, J. R., Jr.: Syphilis Control in War Time. South. M. J., 37:219-224, April, 1944.

8. Nelson, N. A. and Crain, G. L.: Syphilis, Gonorrhea, and the Public Health. Macmillan, 1938, pg. 203-209.

Marriage and divorce statistics go back to 1909. In that time there have been 442,905 marriages and 93,968 divorces in Nebraska.

Proceedings of the Staff Nebraska Methodist Hospital*

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Omaha, Nebraska

II. Useful Procedures in Ambulant Surgery by Dr. Charles McLaughlin, Jr.

I have used the term "ambulant surgery" which L. Kraer Ferguson used in his book published just prior to the war, rather than the much more familiar term "minor surgery" because I believe that it covers more adequately the type of case about which I wish to speak tonight. I would like to say a few words about four relatively common conditions which represent ambulant surgical problems in which certain methods of treatment have been used with advantage; (1) The local use of ice as a cutaneous anaesthetic in superficial lesions, (2) the use of autogenous blood in the treatment of small carbuncles. (3) the use of plaster casts as a post-operative dressing in the ordinary felon or whitlow and (4) the use of novocaine or procaine infiltration in the treatment of acute sprained ankles without fracture. The methods to be discussed are in no case original and in no case are they new. In some instances they have lain dormant in the literature for many years. In others they are developments of relatively recent years.

We are all familiar with the use of ice as anaesthesia for the amputation of a thigh in advanced diabetes. That work was popularized before the war and has had its "ups" and "downs" during the last six or seven years. More recently, there has been a lot of work done on the use of ice in the control of diabetic cellulitis. The work of Heinbecker in St. Louis in the last few months has seriously questioned the advisability of the prolonged use of ice. However, it is not of that I wish to speak. When one is confronted with large numbers of patients with superficial abscesses or boils such as many of us encountered in the Western Pacific area and those encountered at times in industrial surgery, particularly during the hot months, the question of anaesthesia always presents itself as a problem. Local infiltration is never satisfactory and carries with it certain definite disadvantages. General anaesthesia, while it is ideal, is too major a procedure to be followed if one simply wishes to incise an abscess. Ethyl chloride, popularly used in civil life, is certainly far from satisfactory. Without that we had to seek some method to allay the pain in opening large numbers of these lesions and hit upon the local use of ice. Our experience was limited to some 100 cases of major boils or superficial abscesses or areas of cellulitis which had become suppurative.

The technique was simple. We used ordinary ice cubes out of a Frigidaire. We applied a sufficient number of these uncrushed cubes over the inflamed area directly on the skin and covered them by several layers of gauze and a towel, requesting the patient to hold the mass firm. If anatomically possible, it was bandaged tightly to keep firm pressure. About twenty minutes is sufficient time. The cubes are about gone and at the end of that time if you quickly remove the ice, paint the area with an antiseptic, you can incise these areas if they are superficial (and by superficial I mean limited to the skin and the very upper layers of the superficial fat) with complete absence of pain. The patient is only conscious of what he describes as pressure. There are two areas where it is difficult to get good anaesthesia —the tough skin about the elbow and about the knee. Anatomically. that is understandable. We found that it is better to leave the ice on these areas for 25 minutes if you want good anaesthesia. This method may be useful at times. It is probably more a military than a civilian expedient but the point remains that cutaneous ice firmly applied does give anaesthesia.

The treatment of small carbuncles limited to other areas of the body than the face with autogenous blood was described some 25 years ago by a surgeon in the British Military Service in India. His results were unusually fine. I chanced upon the article in a review of carbuncles at the University some five or six years ago and discussed it with a number of men all of whom had tried it once or twice, apparently with satisfactory results, but had not repeated it. I have had occasion to try this on approximately five cases of small carbuncles (by small I refer to a definite carbuncle in which the lesion is approximately the size of a silver dollar. I do not refer to those diabetic carbuncles that are saucer or dinner plate in size). I do not know how the blood works. The technique is carried out as follows: Twenty or 40 cc. is drawn from the vein of the patient. Through novocaine weals outside the periphery of the carbuncle, this blood is introduced in a circle about the carbuncle. It produces some painful but not striking distension. Application of a simple dressing is the only therapy. In each case, we were surprised at the satisfactory results, the course being as follows: the lesion ceased to advance, the central core softened, liquefied and began to drain much more rapidly than by conservative therapy, corresponding to that seen when good roentgen therapy is used. In no instance in this limited series did I see any complication arise as one might expect with an extension of the infection to the autogenous blood. I would not recommend this for use on the face or neck, but on the extremities and trunk, it is worthy of consideration.

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*Delivered at a joint meeting of the staff of the Nebraska Methodist Hospital and the Omaha-Douglas County Medical Society, February 12, 1946.

A felon or whitlow or distal pulp space infection is probably one of the most painful lesions which we see commonly in industrial or office practice. You are all familiar with the person who wakes you early in the morning complaining of a throbbing, painful, distal pulp space infection. The development of an osteomyelitis of the distal diaphysis of the bone is inevitable if we allow it to progress for 24 or 48 or as much as 72 hours because of the peculiar blood supply. Treatment, therefore, is incision and drainage, either by a hockey stick, a fish mouth or some modification of these incisions. Treatment, speaking generally, demands the use of moist boric acid dressings, a width of rubber dam which is removed in 36 or 48 hours, and, in my experience, without bone involvement the patient may have a healed finger in three weeks. If there are many dressings with contamination and the introduction of other organisms we have further destruction of fat and a deformed finger. In a consecutive series of 17 cases we followed the usual procedure of infiltration of the thumb for anaesthesia in the proximal joint, a hockey stick or fish mouth incision, wiped out all liquid infection in the distal pulp space and, rather than introduce a rubber dam, placed some sterile petrolatum between the lips of the wound to prevent too early healing. We then applied a simple gauze dressing and a plaster cast incorporating the wrist, a splint down the back of the hand and the digit, usually the thumb or the index finger. All of these patients who happened to be in the Naval Service were given 3 or 4 quarter grain tablets of codein, given light duty for 24 hours, instructed to hold their hand in an elevated position as much as possible the first day and on the second day were returned to full duty. They worked as aviation mechanics, seamen, in every possible place on the ship. They were able to return to full duty in comfort. There were no subsequent dressings until the 10th day when the cast was removed, and the amazing thing was to see the marked degree of healing, the thin granulating line around the incision and the rapid progression from that time to complete healing, with only one or two simple pressure dressings. The advantages, I believe, are its simplicity, the prevention of contamination of the wound with repeated dressings, the mess of hot soaks, and the healing with less deformity because of a shortening of the healing period.

The last group of cases are those with sprained ankles. The use of procaine as a therapeutic agent was described in Arndt in 1934. It became popular with the British early in the War in the North African Campaign where it was found that the man with a sprained ankle who was put on an arms carrier or a tank and brought in would not walk the next day, but if his ankle was injected, his rifle tossed to him with the command "Catch up with us, bub!", he would walk the next day. That is a little rugged but the principle remains the same. It has been conclusively demonstrated that in the ordinary sprained ankle without fracture in which there has not been an abnormal rotation of the astragalus, complete relief may be given by adequate procaine injection, permitting immediate return to full work with no unfortunate sequela. This principle was followed in 65 consecutive cases of acute sprained ankles brought into sick bay where therapy was as follows: X-rays were made for fractures. The films were read in the wet plate and, if there was no fracture, the maximum points of tenderness, usually two, sometimes three, were carefully elicited. They were usually medial and lateral on the ankle, not infrequently just beneath the fibula, and in three or four cases over the tendon Achilles in addition to the other points mentioned. Each of these was infiltrated with from 10 to 20 cc. of 1 per cent procaine without adrenalin. The ankle was then put into every conceivable position and the patient asked if he had pain. If he did we injected him again until he had a completely painless ankle. No supportive dressing was used. A Band-Aid was placed over the injection sites, the patient told to put his shoe on and lace it tightly and then asked to walk, to stoop, to kneel, to do everything he could with the ankle, and if there was any pain we injected him again. If he did not have pain we sent him to work. One must be sure that there is not an abnormal rotation of the astragalus. An X-ray should be taken with the foot in marked planter inversion. If the astragalus is out of line on the tibia the ligamentous tears are too extensive to make this treatment safe.

What are the results? We asked each of the 60 men to return the next day (you can always get a sailor back if he's in trouble so we didn't have to worry about our follow-ups). Eight returned because of pain. All eight were re-injected. Four of these got excellent results and returned to work with no further disability. Four of the eight who were reinjected came back with further difficulty. Of these four one was given a supportive Ace bandage and was well in three days which is rather difficult to evaluate. One had a rotation of the astragalus, the condition I mentioned above. He was put to bed subsequently in a cast and ran the usual picture with that type of injury. X-rays of the remaining two were carefully reviewed when the film became dry and showed a fracture, a hazard one must always keep in mind. One had a fissure fracture with no displacement; and one had a posterior lipping fracture of the tibia.

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Tuberculosis Abstracts

Travel by air has become so commonplace that it is easy to overlook the fact that the altitude to which commercial planes ascend constitutes a risk to individuals whose pulmonary tuberculosis is under treatment by means of pneumothorax. The recent report* of the death, during flight, of a patient under treatment by pneumothorax, sharply emphasizes this hazard.

EFFECT OF ALTITUDE ON CASES OF PNEUMOTHORAX

One of the most useful forms of treatment for cases of pulmonary tuberculosis is artificial pneumothorax. Since a great number of people having an artificial pneumothorax wish to fly by air in the course of business it is very important that a correct understanding of what happens in the pneumothorax, at varying altitudes, be thoroughly appreciated.

Boyle's law states that, if the temperature remains constant, the volume occupied by a given quantity of gas varies inversely as the absolute pressure exerted upon it or, conversely, if the gas cannot expand, the differences of pressure correspondingly increase. The law covers the behaviour of gas in a thoracic cavity as in pneumothorax, during ascent and descent in an airplane.

During the war, experiments were carried out in a specially constructed chamber in which it was possible to reproduce exactly the same air pressure as at varying altitudes. An X-ray and fluoroscope were fitted in the chamber and the effect of ascent from ground level to any height desired was watched in each case. The patient was first X-rayed at ground level, then X-rayed and screened every 1,000 feet until he had reached a height beyond which it would not be advisable to proceed lest the pneumothorax were pushed beyond a safe collapse.

Various factors alter the height to which it is safe to go. In a case without adhesions and with a fixed mediastinum, with the collapse necessary to prevent the disease being active, greater heights will be possible if the lung is allowed almost to re-expand before the flight. The value of going to these heights, however, will be outweighed by the damage done to the intra-pulmonary lesion by allowing too much re-expansion of the lung.

A gradual collapse of the lung will occur as the altitude increases which the patient will notice at about 6,000 feet. At 8,000 feet, he will probably feel very tight in the chest and will be breathless on slight exertion. The limit beyond which it is not safe to proceed is generally 9,000 feet in these cases. Those with a mobile mediastinum can proceed to about 11,000 feet if the opposite lung is allowed to become compressed, but this is not to be recommended.

Cases with adhesions should never go above 6,000 feet. Two cases with apical adhesions were able to proceed to 9,000 feet although they complained of feeling very dyspnoeic and tight in the chest. Both, at a later date, developed fluid which necessitated a thoracoplasty being performed. The same facts held good in pneumothoraces in which part of a lobe, or a whole lobe, was adherent to the chest wall. When these cases are at an altitude of about 8,000 feet the pulse rate is considerably increased and the vital capacity greatly reduced. In addition, there is dyspnoea and tight feeling in the chest. The drop in vital capacity is more in cases of mobile mediastinum than in fixed mediastinum, or cases with adhesions. In the experiments mentioned, where there was a mobile mediastinum the vital capacity at ground level was 2,550, and fell to 1,600 at 8,000 feet where one with fixed mediastinum only fell from 3,000 to 2,500.

The length of time it is possible to remain at the highest altitude to which it is safe to go is important. If it is necessary to fly at this higher altitude for any time over ten minutes, then at other times during the flight 6,000 feet should not be exceeded.

Cases of pulmonary tuberculosis who have had other forms of treatment, such as phrenic crush or thoracoplasty, can, of course, fly to much greater altitudes without ill effects. One case of thoracoplasty, in an R.A.F. pilot, was taken to 30,000 feet without ill effects. Those who have had no treatment other than sanatorium routine, can fly to the same height as a normal individual without harm to their pulmonary lesions.

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*Dowd, K. E., Aviation Medicine, October, 1945.

Pleural effusion cases clearly should not fly during the active phase when fluid is present, but once the case has been arrested and the fluid absorbed, they can fly just as any normal person.

No harm should befall cases of pneumothorax if they do not fly above 6,000 feet as a rule, nor above 9,000 feet in a shorter emergency not exceeding ten minutes.

In days to come, when pressure cabins are a general rule in airplanes, pneumothorax cases should be able to fly at any altitude to all parts of the world.

—Effect of Altitude on Cases of Pneumothorax, Geoffrey S. Todd, NAPT, Bulletin, April, 1946.

EFFECT OF ALTITUDE ON ABNORMAL ACCUMULATIONS OF AIR IN THE CHEST

A patient with uncomplicated pneumothorax carrying 1,000 cc of intrapleural air at sea level will have the equivalent of 1,270 cc at 6,000 feet, 1,490 cc at 10,000 feet and 1,120 cc at 18,000 feet. We believe air travel for patients with pneumothorax should be restricted to those who would have no respiratory or circulatory distress and no physical discomfort if the abnormally accumulated air in the chest were increased by 100 per cent. An increase of 50 per cent would be permissible if the patient did not have to fly above 10,000 feet. Adequate amounts of air should be removed prior to flight if dangerous increase in pulmonary collapse is expected at higher altitudes. The patient should breathe pure oxygen by mask if there is any possibility of hypoxia.

—Effect of Altitude on Abnormal Accumulations of Air in the Chest, Ezra Bridge and Ezra Bridge, The American Review of Tuberculosis, June, 1945.

DANGERS OF AERIAL TRANSPORTATION TO PERSONS WITH PNEUMOTHORAX

Evidence accumulated seems adequate to justify warning all patients with pneumothorax to avoid transportation by airplane unless they can be assured that no altitude will be attained beyond that which they have previously tolerated without discomfort. Even under the latter condition it is possible that some harm might be done to unstable tuberculosis lesions by the rather large degrees of alternate expansion and collapse which may be occurring repeatedly during a flight, especially when there are frequent landings.

—Dangers of Aerial Transportation to Persons with Pneumothorax, W. Randolph Lovelace II, M.D. and H. Corwin Hinshaw, M.D., Journal of the American Medical Association, April 11, 1942.

Pneumoperitoneum Treatment by Andrew Ladislaus Banyai, M.D., F.A.C.P., F.C.C.P., Associate Clinical Professor of Medicine, Marquette University Medical School, Milwaukee, Wisconsin; Member, Editorial Board, "Diseases of the Chest;" formerly Preceptor in Tuberculosis, School of Medicine, University of Wisconsin, Madison, Wisconsin. 376 pages including index, with 74 illustrations. The C. V. Mosby Co., St. Louis, Mo., 1946.

PENICILLIN AND SULFA DRUGS BRING RELIEF TO SINUS SUFFERERS

Sulfanilamide and penicillin drugs are proving highly successful in the treatment of sinusitis, an infection localized in the sinuses, or air pockets in the bones of the face and skull, according to William W. Bolton, M.D., of the Bureau of Health Education of the American Medical Association.

Writing in the current issue of Hygeia, Dr. Bolton says: "Perhaps the most frequent cause of sinusitis is the common cold, that sets up conditions tending to obstruct easy drainage of the sinuses. Once implanted, germs may continue to grow, depending on their own virulence and the resistance of the host."

Among the less common causes of sinus infection the author lists "working in smoky, dusty atmospheres, experiencing frequent extremes of temperature, and swimming. Immersion of the head has the inevitable resulting of filling the sinuses with water. In most people, it runs out freely and no harm is done, but in some the involuntary 'irrigation' results in infection."

"With the sulfa drugs and penicillin, physicians are finding the battle with sinusitis less of a problem," Dr. Bolton writes. "The drugs are now being used in a two-way attack. First, they may be given internally, that is by mouth or injection beneath the skin. In this way they are carried to all parts of the body, including the sinuses, in the blood stream. Thus, a 24 hour a day bombardment of the infecting germs is possible. In addition, these germ killers can be applied locally in the form of solutions, powders or sprays. Infected sinuses can be irrigated at regular intervals. A special form of penicillin spray known as aerosol penicillin, which is an extremely finely divided mist, has proved of special value in many cases. The microscopic droplets have the ability to penetrate remote, almost inaccessible areas high up in the nose, and points of infection which could not be reached, except perhaps through employment of extensive surgery, are put under control."

Additional avenues to attack sinusitis have been uncovered with newly acquired knowledge about the way the infection develops and progresses, according to the author. "It has been found that in a fairly large proportion of sufferers there is a definite evidence of some form of allergy. In such persons, as any hay fever sufferer knows, a prominent symptom is blocking of the nose and an outpouring of large amounts of watery secretion. The blocking is the result of marked swelling of the mucous structures within the nose. When this occurs, the openings from the sinuses are blocked too. As a result the secretion collects within these hollow cavities, and the stage is set for growth of germs, acute infection and then a chronic condition. If the allergy problem is not solved, swellings occur periodically, and just as periodically there will be a flare-up in the sinus disturbances. Sometimes these patients have developed a special sensitivity to the germs present in their own sinuses and air passages. Sometimes the allergy is related to certain foods, to dusts not ordinarily considered causes of sensitivity, to medicine which may be taken regularly, even to cosmetics. In any case, specific treatment in the form of a vaccine or some other means of desensitization an be given."

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THE PLATFORM OF THE AMERICAN MEDICAL ASSOCIATION

The American Medical Association advocates:

1. The establishment of an agency of federal government under which shall be coordinated and administered all medical and health functions of the federal government exclusive of those of the Army and Navy.
2. The allotment of such funds as the Congress may make available to any state in actual need for the prevention of disease, the promotion of health and the care of the sick on proof of such need.
3. The principle that the care of the public health and the provision of medical service to the sick is primarily a local responsibility.
4. The development of a mechanism for meeting the needs of expansion of preventive medical services with local determination of needs and local control of administration.
5. The extension of medical care for the indigent and the medically indigent with local determination of needs and local control of administration.
6. In the extension of medical services to all the people, the utmost utilization of qualified medical and hospital facilities already established.
7. The continued development of the private practice of medicine, subject to such changes as may be necessary to maintain the quality of medical services and to increase their availability.
8. Expansion of public health and medical services consistent with the American system of democracy.

ANNOUNCEMENTS

If you wish to read a paper at the Annual Assembly of the Nebraska State Medical Association May 5, 6, 7, and 8, 1947, send your name and title to Dr. R. B. Adams, 416 Federal Securities Building, Lincoln 8, Nebraska. No title will be accepted after December 15, 1946.

REFRESHER COURSES FOR GENERAL PRACTITIONERS

Refresher courses for general practitioners that will cover recent advances in diagnoses and treatment of various medical problems encountered by the general practitioner have been announced by The College of Medicine, University of Nebraska. Dr. W. B. Moody, chairman of the Committee of Refresher Courses outlined a two-weeks' intensive course consisting of six hours per day to be given from December 2 to 13 inclusive. Highlights of the course will be the presentation of roundtable discussions by qualified members of the faculty of The College of Medicine with stress on recent medical advances and the newer techniques of medicine and surgery.

Physicians will be housed in the University Hospital. They will utilize the dining room facilities of the hospital and will be able to live and mix with the atending and resident staff of the hospital. A fee of ten dollars ($10.00) will be charged which will in part cover the expense of the course. The only other additional expense is for meals which is approximately $1.20 per day. The course will be limited to ten (10) physicians, and it is imperative that applications be made as early as possible so that a proper selection can be made.

Physicians interested in the Refresher Course training will please write to Dr. W. B. Moody, College of Medicine, Omaha, Nebraska. Applications must be received prior to November 9, 1946, in order to be considered for registration in the Refresher Course.

SCIENTIFIC EXHIBIT

At the Centennial Session of the American Medical Association to be held in Atlantic City, June 9 to 13, 1947, the Scientific Exhibit will include both the history of medicine during the past century and the latest developments of medical science.

Application blanks for space are now available. All applicants must fill out the regular form. Applications close on January 13, 1947, after which time the Committee on Scientific Exhibit will make its decision and notify the applicants.

Application blanks for space should be procured as soon as possible. They are available from The Director, Scientific Exhibit, American Medical Association, 535 North Dearborn Street, Chicago 10, Illinois.

ANNUAL MEETING OF AMERICAN ACADEMY OF DERMATOLOGY AND SYPHILOLOGY

The fifth annual meeting of the American Academy of Dermatology and Syphilology is scheduled for Cleveland, Ohio, from Saturday, December 7 through Thursday, December 12, it is announced by Dr. Earl D. Osborne, secretary of the Academy, 471 Delaware Ave., Buffalo, N. Y. This will be the fisrt meeting of the group since December, 1941, and it is expected to attract more than 1,000 members, according to Dr. Osborne.

The principal sessions will be held at the Statler hotel with daily symposia at the Allerton hotel and teaching clinics at Cleveland City hospital Monday, Tuesday, and Wednesday of the convention week. There will be an extensive scientific and commercial exhibit held in connection with the meeting, which will feature special lectures by members of the Academy and by famed authorities in such other fields as atomic energy, radiology, and surgery.

Most special lectures, special courses and symposia will be presented on the first four days of the week, beginning December 9. It is pointed out that the Academy is chiefly concerned with teaching and in consequence the entire session will be a sort of "post graduate" seminar for the visiting physicians from all parts of the United States and Canada. The annual banquet will be held Wednesday night of the convention week. Dr. Harold M. Cole of Cleveland is general chairman for local arrangements.

Special lectures will be held on precancerous epidermis, biological effects of atomic energy, capillary circulation of the skin, dermatologic manifestations of blood dyscrasias, chemosurgical treatment of external cancer, pathology of disseminated erythematous lupus, and "Is Nationalization of the American Economy Unavoidable?"

There will be special courses given in dermatopathology, mycology, x-ray and radium therapy, medical photography, industrial dermatoses, tuberculides, sarcoid and leprosy, drug eruptions, bacteriology of the skin, and mucous membrane diseases.

Subjects for symposia will include pharmaceutical therapy, syphilis, x-ray and radium therapy, hormones in dermatology, physical therapy, diagnosis and treatment of ringworm, dermatopathology round table, physiology and chemistry of the skin, allergy, and the psychosomatic factor in skin diseases.

Officers of the Academy are President Dr. George M. MacKee, New York City; Dr. Everett C. Fox, vice president, Dallas, Texas; Dr. Clyde L. Cummer, treasurer, Cleveland, and Dr. Earl D. Osborne, secretary, Buffalo, N. Y.

WOMAN'S AUXILIARY

The Executive Board meeting of the Nebraska State Medical Auxiliary was held at 10 a.m. on September 20th, 1946, at the University Club in Lincoln.

Mrs. E. S. Wegner, Lincoln, the State President, presided over the business meeting. The various board chairmen gave their reports and a nominating committee for next year's officers was appointed as follows:

Mrs. H. H. Davis, Omaha; Mrs. A. D. Brown, Central City, Chairman; Mrs. Glenn Whitcomb, Omaha; Mrs. O. V. Calhoun, Lincoln, and Mrs. P. O. Marvel, Giltner.

Mr. M. C. Smith gave a very timely and informative talk on the Nebraska Medical Service and the Blue Cross Hospital Plan.

The meeting was concluded with the board as guests of Mrs. Wegner at luncheon at the University Club.

Mrs. A. O. Faser was elected president of the Tri-County Medical auxiliary following its monthly dinner at the Hotel Pathfinder, Fremont, Monday evening, September 30. Mrs. Andrew Harvey became vice president and Mrs. W. H. Hill, secretary-treasurer. A social hour was held after the business session.

The Auxiliary to the Omaha-Douglas County Medical Society held their annual membership tea at 2 p.m., Tuesday, October 8, at the home of Mrs. J. A. Borghoff, secretary. Mrs. E. S. Wegner, state president, talked to the group, and Mrs. Herbert F. Gerald, county president presided. Mrs. Frank Conlin gave a report on the national meeting.

MRS. O. V. CALHOUN,
Publicity Chairman.

HOSPITAL NEWS

Gov. Dwight Griswold recently announced the appointment of a 20-member State Advisory Council to the Department of Health.

The committee, which will administer a new Federal aid program for hospitals, will receive applications for grants of Federal money. It will continue the hospital survey begun last summer by a preliminary group named by the governor.

The new committee will meet at the call of Dr. W. S. Petty, State Health Director. Members are:

W. C. Coad, Omaha, president of an Omaha milling firm; State Senator A. J. Brodahl, Wahoo; Everett Dennis, Scottsbluff stockman; H. G. Gould, Lincoln, State Agriculture Extension Division; Charles D. Marshall, Elwood, president State Farm Bureau Federation.

Chris Milius, Helvey, president, State Farmers Union; John J. Guenther, Omaha, president, Nebraska Federation of Labor; Paul E. Schmeling, Superior banker; J. E. Hauge, Meadow Grove, editor; Mrs. Lorena Hahn, Lincoln, chairman, Board of Control; F. A. Pierson, Lincoln, dentist.

Mrs. Walter Kiechel, Tecumseh, former president, State Federation of Women's Clubs; C. M. Wilhelmj, Omaha, dean, Creighton School of Medicine; Harold C. Leuth, Omaha, dean, University of Nebraska College of Medicine; Roy W. Fouts, Omaha, physician.

Mrs. Alta Corn Munro, Kearney, nurse; C. E. Alter, Alma, lumber dealer; Mrs. Carol Mortensen, Ord, past president, American Legion Auxiliary; Robert W. Witham, manager, Lincoln General Hospital.

An inventory of existing hospitals is complete with the exception of 34 that have failed to report, according to Dr. D. M. Alderson, the director of the survey. Information has been received from 127. He said that 7 or 8 probably would not report because of lack of interest and antagonism against governmental activity in public health. Others were delayed by lack of personnel.

Dr. Alderson said about ten months would be required to finish studies on population, geographic and other factors bearing on need for hospital service. At the same time a tentative plan will be ready for co-ordinating hospital and public health services for the entire state.

On completion of the survey, the information will be given the American Hospital association for compiling to determine needs for hospitals in the state or for any given area.

The survey shows the two metropolitan areas, Omaha and Lincoln, contain 15 of the general hospitals and all but three of those having more than 100 beds. These hospitals contain 2,558 beds of the total 5,065 in the state.

Omaha and Lincoln have 638 of the 1,442 doctors in the state and 1,303 of the 2,571 registered nurses. The 14 cities of more than 5,000 population have 26 general hospitals with a total of 1,365 beds, 341 doctors and 571 nurses.

Outside of the 16 larger cities there are only 81 general hospitals with 1,142 beds or an average of 15 beds per hospital. This area has about one-half of the population. In this area there are only 463 doctors and 597 nurses.

Dr. Alderson pointed out that the task remaining is to determine where, what type and how much hospital, health and medical service needs to be developed to serve the people in each area.

In some towns below 5,000 population, the survey showed, it would be possible to maintain hospitals of from 25 to 50 beds. In smaller localities in the hospital area, plans were suggested for health centers which could contain offices of doctors and dentists and also furnish five to 20 beds for normal obstetrics, medical and surgical emergencies until the patient could be transported safely to the district hospital.

LIMITED STREPTOMYCIN SUPPLY NOW AVAILABLE FROM "DEPOT HOSPITALS"

Twenty-six institutions in key cities of Nebraska have been designated as "Depot Hospitals" for the commercial distribution of streptomycin by the Civilian Production Administration, following a similar plan used initially for penicillin.

More than 1,600 general hospitals of the country have been selected as depots by CPA officials, assisted by an advisory panel including Dr. Chester S. Keefer, National Research Council; Dr. C. J. VanSlyke, USPHS, and Dr. Victor Johnson, AMA. Copies of Dr. Keefer's report on the indications, contra-indications, mode of administration, dosage and toxic effects of streptomycin, have been distributed to the depot hospitals, to which all requests for a supply of the new product should be directed.

Streptomycin is particularly indicated for usage in tularemia, urinary tract infections, hemophilus infections, bacteremia due to gram negative organisms, and meningitis due to certain specific organisms. It has been found to be of questionable value in typhoid fever, brucellosis and salmonella infections, and ineffective in clostridia infections, malaria, rickettsial infections, virus infections and infections with mold and fungi.

The report emphasizes that while the drug is a helpful agent in tuberculosis, it will not replace any of the established forms of treatment. Because of the large quantity of streptomycin needed (135 to 270 grams minimum) to treat tuberculosis, the present supply is not sufficient for general use against this disease. The average allotment to a depot hospital for all purposes would treat only one tuberculosis patient. The drug is supplied in ampoules of 0.5 and 1.0 gram each. Any non-depot hospital or physician may call upon depot hospitals for purchase of streptomycin for indicated conditions. Depot hospitals will place orders directly with individual suppliers, as designated on monthly quota notices, the CPA advises.

NEBRASKA DEPOT HOSPITALS

Alliance—St. Joseph's.
Beatrice—Lutheran.
Columbus—St. Mary's.
Fremont—Dodge County.
Grand Island—St. Francis.
Hastings—Mary Lanning Memorial.
Kearney—Good Samaritan.
Lincoln—St. Elizabeth, Bryan Memorial, Lincoln General.
McCook—St. Catherine of Sienna.
Norfolk—Our Lady of Lourdes, Lutheran.
North Platte—St. Mary's.
Omaha—Bishop Clarkson Memorial, Creighton Memorial St. Joseph's, Doctors, Douglas County, Immanuel Deaconess Institute, Lutheran, Nebraska Methodist, St. Catherine's.
Scottsbluff—St. Mary's, West Nebraska Methodist.
Valentine—General Hospital.
Council Bluffs, Iowa—Mercy and Jennie Edmundson Memorial Hospitals.

According to a press report the Burwell hospital closed early in September "temporarily or until more help is available."

HEBRON—Purchase of the girls' dormitory building of the old Lutheran college and the engagement of Dr. R. E. Penry as Medical Director, are the first steps taken toward establishment of the new Thayer County Memorial Hospital. Sponsored by the Hebron Commercial Club, a campaign is under way to raise $35,000 by public subscription for equipping the institution, which will have 38 beds and 10 bassinets. The rooms all will be furnished by individuals in memory of residents of Thayer County who were in military service during World War II.

The institution, which will open in the late fall, will provide facilities which have been lacking in the Hebron community since closing of the Blue Valley Hospital, several years ago. Nearest hospitals are at Superior and Fairbury, each 30 miles distant.

McCOOK—Construction of the new wing at St. Catherine's hospital and a convent home for Dominican sisters who operate the hospital here will begin soon, according to Sister Superior Mary Jane. Cost of the project is estimated at $300,000.

The new hospital wing will house the obstetrics and pediatrics departments and provide additional rooms for patients. The convent home will provide accommodations for 24 nuns.

OMAHA—Announcement of plans for a new 175-bed hospital plant, to be erected on the grounds of the University of Nebraska School of Medicine at the cost of a million dollars, has been made by the Lutheran Hospital Association. Construction may be delayed for several years, however, pending a leveling off in building costs. Selection of an architect has not yet been made, although negotiations have been completed for the leasing of a square block of ground from the University.

The cornerstone of the Children's Memorial Hospital was laid Saturday, September 28, 1946. It was laid by Henry Doorly, World Herald publisher, who conceived the idea of the hospital. He has been a leading supporter and benefactor since the idea began to take form. Though the original hospital plan calls for 65 beds it has been enlarged to provide 100 beds. Mr. Doorly predicted that in his opinion even the 100-bed building soon will be too small to fulfill the needs. He stated: "More than $520,000 has been raised for the project but it will be necessary to raise another $100,000 during the coming winter to complete the job." About 100 persons stood in the rain to attend the ceremony. Other speakers on the program were Governor Dwight Griswold, Dr. John M. Thomas, President of the Nebraska Pediatric Society, clergymen of the Catholic, Protestant and Jewish faiths, and Mayor Charles Leeman.

OSMOND—The first anniversary of St. Joseph's Hospital was celebrated in "Hospital Day," September 25. In addition to its general service to the area the hospital boasts of 62 obstetrical cases during the first year of its existence. Below we quote an editorial from the Lincoln Star:

> Celebration of the first anniversary of St. Joseph's hospital at Osmond, small town in northeastern Nebraska, directs attention to the increase in the number of such institutions in this state in the past few years. This is one of the most gratifying developments that could have taken place, insuring as it does the prompt and proper care of those requiring medical or surgical attention in emergency or other cases. While modern medical science is prolonging life and alleviating pain and suffering to a degree not dreamed of a few years ago, it requires if the best results are to be attained, facilities and equipment not to be had in any home. There must also be trained attendants and all these require an institution maintained for the special purpose to which it is devoted. When Nebraska was new we had military posts strategically located to protect the inhabitants from hostile Indians. It is just as essential that we now provide conveniently located hospitals that the dangers from sickness or accident may be reduced to the minimum.

NEWS and VIEWS

According to a United Press dispatch to the World-Herald, valuable medical information obtained in the Bikini atomic tests will not be made available to other nations.

This was revealed recently by Vice Admiral W. H. P. Blandy, commander of Operation Crossroads.

He said the Army and Navy gained vital information on diagnosis and early treatment of radiation sickness from the five thousand animals used in the tests.

Admiral Blandy met with newsmen aboard the Navy attack transport Burleson which arrived with a cargo of 2 500 goats, pigs and rats, survivors of the Bikini tests. They will be examined.

Vice Admiral Ross T. McIntire, chief of the Navy's Bureau of Medicine and Surgery, said that some of the medical information will be used to treat Japanese survivors of the Nagasaki and Hiroshima blasts. He added that the lives of some persons there still hang in the balance "although most have died."

Capt. Shields Warren, attached to Admiral Blandy's medical staff, said the tests disclosed that the animals' sex cells were very sensitive to radioactivity. He reported that the normal sex functions of some of the animals had been destroyed.

From the Associated Press:

Philadelphia —(AP)— The Veterans Administration plans to establish at least one hundred mental hygiene clinics throughout the Country to help decrease the number of its mental patients, the American Protestant Hospital Association was told.

Dr. J. C. Harding, assistant medical director for V. A. auxiliary services, reported to the association's convention that half of all the V. A. hospital space is occupied by mental patients.

"Any veteran with a problem on his mind, whether just a matter of counseling or bordering on serious mental condition, can go to these clinics for assistance," he said.

Proposing to get Nebraska's mental health laws up to a standard with other states and modernize the treatment of the mentally ill in the state, the sub-committee on mental health of the legislative committee of the Nebraska Welfare association met at a dinner at the Cornhusker recently. Miss Gertrude Church, chairman, presided.

* * *

According to Dr. A. E. Bennett of Omaha, one of the objectives of the committee is to attempt to have the mental health laws of the state changed to permit voluntary admittance to state institutions of mentally ill persons who are not insane and cannot gain admittance through the courts. Dr. Bennett stated that Nebraska is one of only 14 states allowing no voluntary admittance to state institutions.

All suggestions were discussed and turned over to the legislative committee on mental health for use in drawing up a bill to be taken up for review and final approval at a meeting next month.

Present at the meeting were the superintendents of state hospitals, the board of control, psychiatrists, and Ben Hayenga, president of the Nebraska Welfare association. There were 20 present.

NATIONAL FOUNDATION FOR INFANTILE PARALYSIS

The National Foundation for Infantile Paralysis, established in January, 1938, and supported by the March of Dimes Fund Appeal conducted each year during the last two weeks of January, has a local chapter in every Nebraska County.

Fifty per cent of the funds raised during the March of Dimes Fund Appeal remains with the chapters, for payment of medical care for local infantile paralysis patients whenever payment of such costs by an individual or family involved will in any way tend to work a financial hardship.

The other fifty per cent is forwarded to National Headquarters of the Foundation for use in its year-round program of (1) research into the cause, cure, and possible prevention of infantile paralysis; (2) training of doctors, nurses, and physical therapists in the most modern care and treatment of the infantile paralysis patient; (3) distribution through press, radio, and otherwise, up-to-date information as has been learned concerning the disease; and (4) for emergency aid in major epidemic areas, as in Rockford, Illinois, in 1945, and in Colorado and Minnesota this year.

Services for which local chapter funds may be expended include ambulance service; hospital care; nursing service; doctor's care, including consultation services if desired by the patient's physician; long distance telephone calls by the physician in arranging hospitalization; in short, anything pertaining to provision of medical care for the patient, including any orthopedic appliances and hospital equipment needed.

Chapters of the National Foundation may frequently be found listed in the telephone book under Infantile Paralysis Foundation. If not otherwise known, names of the local officers of your chapter may be secured by contacting Mr. Clinton Belknap, Nebraska Representative for the National Foundation for Infantile Paralysis, 440 Stuart Building, Lincoln, Nebraska. Mr. Belknap's telephone number is 2-4827.

A book entitled "Health Education in Rural Schools" was recently published by Nina Lamkin, Director of Public Health Education, Nebraska State Department of Health. This is Miss Lamkin's twelfth book, and if the present book is a criterion this editor regrets having missed the previous publications. Health Education in Rural Schools is an excellent treatise of a subject with which most authors, in spite of noble intentions, have failed to create a serious impression. Miss Lamkin is to be congratulated on a difficult task so well accomplished.

A gift of $250,000 for a new Institute for Research in Tropical Medicine to be established in Liberia was announced in September by Harvey S. Firestone, Jr., president of the Firestone Tire and Rubber Company.

Mr. Firestone announced the gift at a banquet given by the Consul General of Liberia, Frederick A. Price, at the Waldorf Astoria Hotel commemorating the one hundredth anniversary of the independence of the Republican of Liberia. Guests included State Department and other government officials, foreign diplomats, and medical, educational and religious leaders. Mr. Firestone described the donation both as a memorial to his father, and as a contribution to the West African republic's centennial program.

Mr. Firestone reported that the American Foundation for Tropical Medicine had favorably received a proposal that it operates the new institute which will be erected and equipped with the Firestone gift.

Dr. Thomas T. Mackie, president of the American Foundation for Tropical Medicine, accepted the gift on behalf of the Foundation. He stated, "Both from the national and international points of view, strong and continued support for graduate education and research in tropical medicine is urgently needed . . . especially since existing university funds are too heavily burdened to support adequate developments in this internationally important field. The future importance of tropical areas can hardly be exaggerated. Experience has proved that tropical medicine is an immensely valuable tool for international cooperation."

University members of the Foundation which will carry out the work of the institute include: Harvard, Johns Hopkins, Stanford, Tulane, California, Southern California, Duke, Chicago, Michigan, the Long Island College of Medicine and the New York University College of Medicine.

DR. GEORGE T. PACK HEADS MEDICAL COMMITTEE ADVISING NEWLY FORMED NATIONAL CANCER FOUNDATION

Pointing out "one of the most urgent public health problems of the day" is the need of hospital facilities for the treatment and terminal care of the innumerable patients in the United States who have incurable cancer, Dr. George T. Pack, chairman of the medical and scientific advisory council of the recently organized National Cancer Foundation on September 10th, announced the formation and membership of the Medical Advisory Council.

This committee will work with Julius Jay Perlmutter, President of the National Cancer Foundation, 85 Franklin Street, under the direction of Dr. Pack. The Foundation recently announced its plans for raising of funds to provide these facilities, as well as to continue to "press vigorously" with its affiliated organizations, Sponsors of Government Action Against Cancer and the National Foundation for the Care of Advanced Cancer Patients.

The medical advisory committee, as yet incomplete, will include: Dr. Halsey Bagg, Dr. Gemma Garzilai, Dr. E. V. Cowdry, Dr. Howard J. Curtis, Dr. Andrew J. Donnelly, Dr. G. Failla, Dr. Benjamin L. Feuerstein, Lt. Colonel Milton Friedman, Dr. Harry B. Friedgood, Dr. Richard H. Hoffman, Dr. Ira I. Kaplan, Dr. Daniel Laszlo, Dr. Michael Levine, Dr. Rudolph Matas, Dr. Edgar Mayer, Dr. George P. Miley, Dr. Sherwood Moore, Dr. John E. Mosley, Dr. Frank Ober, Dr. George T. Pack, Dr. Stanley R. Reimann, Dr. Simon L. Ruskin, Colonel Albert E. Russell, Dr. Isabel Scharnagel, Dr. Joseph O. Smigel, Dr. George M. Smith, Dr. Henry K. Wachtel, Colonel Stafford L. Warren.

"General and special hospitals in the United States are already taxed beyond capacity," Dr. Pack said, "to care for acute and subacute diseases. It will be several years before they can accommodate the number of people who need hospital care even of short duration. These hospital rooms and beds, so constantly occupied, cannot readily be turned over to patients with chronic disabling diseases such as cancer. People with advanced cancer may require continuous nursing and medical attention for several months or even several years. Even the most humane and sympathetic hospital director could not conscientiously allocate a considerable number of his precious beds for the care of a few people for so long a time."

Stressing the inadequacy of the few institutions in the country to provide care of this nature, Dr. Pack emphatically stated that the average home is not prepared to accommodate itself to months of invalidism involved when a member of a family is stricken with cancer, beyond hope of control. "The tragedy in each instance," he said, "in addition to realizing and accepting the impending loss of this member of the family, is the unexpected hardships entailed in the daily nursing usually by some relative who is physically, emotionally and scientifically unfit for this trying task. Cancer is an impoverishing disease, as many families have discovered due to the inevitable financial burden of months of home care."

Revealing that many more people die of cancer than tuberculosis, he said that the healing and cure of tuberculosis patients can be accomplished with greater certainty by confinement in special sanatoria and that these advantages have been accepted by the people and the governments of municipalities and states. The professional care of the patient with cancer is infinitely more difficult, it was learned. Dr. Pack also urged that the citizens of the United States take action to stimulate by local, state and federal means, hospital provisions for the deserving cancer patient, "because almost every home in the country has been afflicted with this disease." A similarity to the problem was drawn in the case of patients with mental diseases, usually cared for in special hospitals for the insane, sometimes for indefinite periods. This is solved, Dr. Pack said, and accepted by most families and the state through taxation, which aids in this program of hospitalization.

"The purpose of voluntary hospitalization of the advanced cancer patient," Dr. Pack continued, "is not solely to relieve any home or family of a difficult social and financial burden, but more important still, to do something for the unfortunate patient. Special hospitals for this purpose, such as the contemplated Hope Institute in New York City, and eventually a series of them through the United States, as planned by the National Cancer Foundation, will be so equipped with x-rays and radium laboratories, operating rooms, neurologic facilities for the relief of pain, expert and constant nursing and professional care that many of these patients will be salvaged and all of them will be helped. It is the physician's responsibility and desire to do everything possible for the cancer patient, but he should be provided with the hospitals and equipment to make this possible. It is cruel to deny expert treatment and care to any individual who has a hopeless disease. It is not in keeping with the American tradition to tolerate this negligence. It is time for an educational crusade to enroll the support of every citizen."

COUNCIL ON MEDICAL SERVICE AND PUBLIC RELATIONS, A.M.A.

This news letter affords the opportunity to introduce two newcomers in key positions in the American Medical Association whose job it will be to help with the prepayment medical care program:

Mr. Howard Brower, who has been discharged recently from military service, has joined the staff of the Council on Medical Service. His principal duty is to assist in the Division of Prepayment Medical Care Plans. He has had insurance experience, serving for six years with the Insurance Department of the State of Michigan, and as a member of the staff of a private insurance company.

Mr. L. S. Kleinschmidt has joined the staff of the Council on Medical Service and will pay particular attention to the rural aspects of prepayment medical care programs. He has a background of thirty-two years' experience in dealing with the public and in developing organizations for meeting special rural problems. During the past ten years, he has worked with state medical societies and lay groups in developing for the Farm Security Administration medical service plans designed to improve local rural health.

Rural Health

THE JOB MUST BE DONE

What can be done to bring better medical care to the American farmer and his family?

The Committee on Rural Medical Service, functioning since June, 1945, has established committees on rural medical service in thirty-one states. The work of these committees is reflected in their reports. This widespread recognition of the importance of the rural health problem is shared by the organized farm groups. At the First Annual Conference on Rural Medical Service held March 30, 1946, it was agreed that neither the doctors nor the farmers could solve this problem alone.

It is important that the medical and farm group committees work in close harmony in each state. The placing of facilities under the Hill-Burton program will affect rural areas in nearly every instance and is a current case in point.

The Committee on Rural Medical Service of the American Medical Association is grateful for the work done in the states by the component state committees.

F. S. CROCKETT, M.D., Chairman,
Committee on Rural Medical Service.

Rural areas do not have the wealth and purchasing power to compete successfully with cities for medical services. In several rural areas the problem has been met by cooperative hospitals and cooperative medical plans. Hundreds of farmer's cooperatives such as dairy co-ops in Minnesota, Wisconsin, North Dakota, Ohio, New York and other states; citrus co-ops in California; and fruit and vegetable co-ops in Colorado and Ohio have arranged prepaid hospital service for their members under the Blue Cross plan. Similar arrangements have been made by service co-ops such as electrification, drainage, mutual insurance and mutual irrigation associations. Major problems such as the improvement of rural health services cannot be solved over night but it is encouraging to see that some progress is being made—much more is needed.

JOHN H. DAVIS, Executive Secretary,
National Council of Farmer Cooperatives.

COUNCIL ON INDUSTRIAL HEALTH, AMERICAN MEDICAL ASSOCIATION

Dr. C. M. Peterson, Secretary

The Council on Industrial Health feels that rural industrial health can and should be improved. It has been observed that improved standards of industrial medicine depend largely on local medical organization, education and leadership, expressed through committees on industrial health in state and county medical societies. It is believed that industrial health conferences to which physicians, community leaders and farm leaders are invited, are most beneficial in demonstrating the vigor, strength and foresight with which organized medicine has always met the health problems associated with greater America. In following through on the above policy, the Council on Industrial Health in cooperation with the state medical societies of agricultural states is currently sponsoring a series of regional industrial health conferences, the most recent of which was held on June 4, 1946, in Denver, Colorado. For the future, it can be stated that in the light of present developments, the outlook for improvement in the field of rural industrial health is most heartening.

COUNCIL ON MEDICAL EDUCATION AND HOSPITALS, AMERICAN MEDICAL ASSOCIATION

Dr. Victor Johnson, Secretary

The continuation education of physicians in postgraduate courses has been given tremendous impetus by the war. This type of training is valuable to all physicians, but is particularly helpful to physicians in rural communities where contacts with larger medical centers are relatively infrequent.

The Educational Number of the Journal of the American Medical Association published August 17, 1946, analyzes the courses offered at the post-graduate level in the past year. In all there were nearly 46,000 physicians who attended courses varying in duration from a few days to several months in all parts of the United States in a great variety of fields. This enrollment was almost three times the enrollment of the preceding year. While many of those who participated were physician veterans, a considerable number of civilian physicians likewise attended including large numbers of physicians from rural communities. Many of the courses offered are organized in such a way and in such places that physicians need not travel long distances to enroll. A complete list of such courses is published semi-annually in the Journal, usually in June and December.

THE FARM FOUNDATION CONFERENCE

Development of an educational program to help rural people better understand the problems involved in improving health and medical services was recommended by the Southern Rural Health Conference held at Lookout Mountain near Chattanooga, Tennessee, in June according to Dr. Leland B. Tate of the Farm Foundation of Chicago, representative of the sponsoring organization. The planning committee for this conference was continued to promote workshop conferences to train community leaders.

The conference was attended by representatives of farm groups, state health departments, and federal agencies.

Ray E. Wakeley, Leader of Sociology, Iowa State College, Ames, Iowa, states: "Three years ago we developed an outstanding educational program in Iowa schools. Eight study units were set up in such a way that local people could use them in analyzing their school situations. County committees developed their information on the basis of these study units. The interest and publicity resulting was a major factor in progressive school legislation passed by the last Iowa legislature. I am sure that something similar might be worked out for rural health programs in this and other states."

Farmers believe that the passage of the Hill-Burton Bill will bring medical facilities into rural communities. These facilities, in turn, will help to attract doctors and nurses into these communities where their services are so badly needed. Farmers are fully aware of their great need for medical service.

They are anxious to do something about it on their own initiative and feed that the first important step in accomplishing this goal has been realized with the financing of facilities over which local people can have control. They are anxious to sit down with represenatives of the medical profession and develop a program which will meet the situation in rural areas.

R. B. CORBETT, Secretary,
American Farm Bureau Federation.

"COMPULSION—THE KEY TO COLLECTIVISM"

Branding the conduct of the recently-ended public hearings of the Education and Labor Committee of the United States Senate on the so-called National Health Program (S. 1606) as deliberately framed to create a false impression of public support, the National Physicians Committee for the Extension of Medical Service in September released a 196-page book entitled "Compulsion—the Key to Collectivism."

In the foreword, the book states: "Already we are confronted with the establishment of controls and 'lusts for power' never before known in this country . . . There is just one thing that it is essential for the American people to understand: Communism, Fascism, Nazism are not mere matters of terms or definitions. They result from the establishment of centralized controls and the operation of mechanisms of administration . . . If the Wagner-Murray-Dingell proposals were enacted into law they would introduce a compulsory tax to pay for a compulsory service—medical, dental and nursing care—directly affecting the most vital and most sacred functions of each individual citizen of the United States . . .

"During the last twelve years we have witnessed the encroachments that are leading, even now, to a creeping paralysis of our social and economic functions. The designs of the schemers is made crystal clear. It is not merely a matter of medical care—or the regimentation of the medical profession that is at stake. It is our country—our beliefs, our concepts—our very souls that are involved."

The study points out that witnesses permitted to testify before the so-called fact-finding Senate Committee were selected by a "carefully-chosen screening committee," friendly to the proposed legislation, with the result that the final record showed an average of two witnesses appearing in support of Title II of the Wagner-Murray-Dingell Bills for every one permitted to appear in opposition to the Compulsory Health Insurance provision of the measure—this despite urgent requests from hundreds of practicing physicians for an opportunity to be heard in opposition.

Both the historical narrative in the book and the voluminous excerpts from the hearings develop the astounding fact that a major portion of the agitation for Political Medicine in the United States springs from "public welfare" agencies of the Federal Government, and that to an amazing degree these agencies are dominated by men and women long recognized as sympathetic to the philosophy of State Socialism. From this source, over the years, an imposing array of Leftist organizations has grown to disseminate government propaganda for such insidious freedom-destroying proposals as contained in the Wagner-Murray-Dingell Bills.

Reverting to the public hearings before the Senate Education and Labor Committee, presided over by Senator James E. Murray, of Montana (one of the sponsors of the legislation), the book relates how the meticulous stage-setting for the hearings was rudely upset on the opening day by the dramatic action of Senator Robert A. Taft, a member of the Committee, who strode from the Committee room after a verbal tilt with Senator Murray.

Pages of testimony of proponents of Political Medicine and cross-examination are printed to show that some of the witnesses had not even read the Bill, that others were unfamiliar with the provisions of the measure and even with the prepared statements they were reading into the record. On the other hand, men prominent in the medical and dental professions and others outstanding in religious and business circles presented documented testimony in support of their contention that compulsory, tax-supported Sickness Insurance not only was not necessary in the United States, but that if such a basis of centralized control were once established the Collectivists would almost certainly take every other area of human activity and endeavor.

An illuminating chapter of this remarkable document blasts the much mis-used draft rejection statistics, which have been distorted by advocates of Political Medicine in an effort to discredit the type and scope of medical care available in the United States. The controversial statistics are analyzed and shown utterly to lack the significance attributed to them by the Compulsory Health Insurance proponents. Through testimony of competent witness, before the Senate Committee, it was established that the actual number of military rejectees whose physical deficiencies might possibly have been avoided by better medical care in infancy or youth was about 31 per cent of the number so glibly charged to the "breakdown of American Medicine."

Congressman Arthur L. Miller, of Nebraska, testifying regarding the distortion of draft rejection statistics, reminded the Senate Committee that the United States has the finest hospitals, and the most highly developed medical and surgical techniques in the world. He warned that the complete revolution of medical practice, medical education, hospitals and research under a Federally-administered Compulsory Health Insurance Program would bring about progressive deterioration and ultimate collapse of the great gains medicine has made under the American Free Enterprise System.

"Compulsion—the Key to Collectivism" records the frustration of an ill-conceived plan to pervert the high purposes of a Congressional function of vital importance to the welfare of every American citizen.

BUY
U.S. SAVINGS BONDS

REPORT OF EXECUTIVE DIRECTOR OF NEBRASKA MEDICAL SERVICE

NEBRASKA MEDICAL SERVICE
CASH RECEIPTS AND DISBURSEMENTS

September 30, 1946

Cash on hand September 1, 1946		$38,385.10
Receipts:		
From dues	$ 8,299.00	
From enrollment fees	808.00	
Taxes deducted from salaries	4.30	9,111.30
		$47,496.40
Disbursements:		
Administrative expense	$ 1,712.36	
Claims paid	4,587.00	
Salary, Executive Director	150.00	
Changing corporate seal	4.50	
Secretary's fee	25.00	
Advertising	133.14	
Printing and stationery	466.00	
Attorney	50.00	
Refunds	29.50	
Exchange	-------	
Home office travel and expense	48.36	
Collection expense	1.43	
Taxes paid	6.00	
Hospital records	10.00	
Medical Adviser	50.00	
Dues	20.00	7,293.29
Cash on hand, September 30, 1946		$40,203.11
Bank Balance, September 30, 1946		$40,203.11

NEBRASKA MEDICAL SERVICE
BALANCE SHEET

September 30, 1946

Assets:			
Cash in bank		$40,203.11	
Premiums in process of collection		7,321.18	
U. S. Bonds (cost plus accrued interest)		15,035.55	
Prepaid insurance premiums		-------	$62,559.84
Liabilities:			
Accounts payable, Blue Cross		$ 2,070.77	
Accounts payable, monthly invoices		203.66	
Accrued payroll taxes		17.40	
Claims payable		2,000.00	
Accrued audit expense		225.00	
Unearned premiums		18,097.19	
		22,614.02	
Subscribers 4% Surplus Notes	$19,450.00		
Net income to date	20,495.82		
		39,945.82	
			$62,559.54

NEBRASKA MEDICAL SERVICE
INCOME AND EXPENSE

September 30, 1946

	September 1946	9 Months to Date
Income:		
From dues	$10,696.25	$63,859.50
From enrollment fees	808.00	4,931.00
	$11,504.25	$68,790.50
Expenses:		
Claims	4,587.00	33,152.00
Salary, Executive Director	150.00	1,350.00
Legal	50.00	420.00
Auditing	25.00	225.00
Advertising	14.00	980.74
Printing	248.45	2,367.59
Stationery	62.21	110.54
Insurance	-------	162.92
Administrative expense	1,814.83	12,281.84
Home office travel and expense	48.36	475.45
Secretary's fees	25.00	225.00
Collection expense	1.43	16.52
Taxes and licenses	7.50	49.50
Miscellaneous	8.00	44.05
Postage	-------	183.45
Dues	20.00	109.25
Medical Adviser	50.00	390.00
Furniture and fixtures	22.00	22.00
	$ 7,133.78	$52,565.85
Net Gain	$ 4,370.47	$16,224.65

MEMBERSHIP SUMMARY—September, 1946

	Subscribers	Dependents	Total
1. Membership, September 1, 1946	6,981	9,565	16,546
Additions	852	1,392	2,244
Cancellations	103	86	189
Membership, October 1, 1946	7,730	10,871	18,601
2. Number of groups now enrolled			470
3. Number of groups added during September			38

4. Members enrolled by salesmen:

M. W. Ashton (outstate)	361
S. M. Hall (outstate)	133
W. V. Jones (Omaha)	41
B. R. Lohnes (Omaha)	79
G. S. Malone (outstate)	119
C. H. Smith (Omaha)	73
Office	46
	852

SEPTEMBER ENROLLMENT BY COMMUNITIES

OMAHA—7 groups, 204 members: Civilian Production Administration; John Clay and Company; John Dunn Company; Omaha & C. B. St. Ry. Company (Cumings, Lake, and Pierce Barns); Omaha Sewage Plant; St. Cecelia's Cathedral; Swanson Petroleum Company.

LINCOLN—4 groups, 92 members: Colorado Fuel and Iron Company; Lincoln Police Department; Lone Oak Cafe; Robinson's Incorporated.

SUPERIOR—2 groups, 11 members: J. C. Penney Company; Superior Style Shop.

YORK—1 group, 15 members: Blue Star Produce.

FAIRBURY—1 group, 11 members: U. S. Post Office.

LAWRENCE—1 group, 8 members: Lawrence Community Group.

BROKEN BOW—1 group, 12 members: M & M Auto Repair.

FREMONT—2 members.

NEBRASKA CITY—2 members.

NORTH PLATTE—15 groups, 139 members: Bowman Auto Company; Brown Studio; Cooksley Auto Sales; Fairway Foods; Frank's Super Service; Hotel Pawnee; Ideal Dairy; Lincoln County Assistance Office; Montgomery Ward Company; Nielsen-Petersen; J. C. Penney Company; Seeger Produce; Sixth Street Market; Sweetbriar Shop; F. W. Woolworth.

SIDNEY—2 groups, 171 members: John Deere Plow Company; Sioux Ordnance Depot.

HASTINGS—1 group, 48 members: Quality Market.

COLUMBUS—1 group, 9 members: Central National Bank.

GRAND ISLAND—1 group, 107 members: Grand Island Army Air Base.

STAPLETON—1 group, 11 members: Logan County Health Council.

SCOTTSBLUFF—10 members.

NEBRASKA MEDICAL SERVICE
CLAIM REPORT

September, 1946

Number of claims paid		113
Number of services rendered		126
Females		59
Males		54
Subscribers		45
Dependents		68
Type of Service	Number	Amt. Paid
Anesthesia	3	$ 15.00
Appendectomies	15	1,500.00
Eye	3	32.50
Gall Bladders	2	275.00
General Surgery	11	345.00
Gynecology	11	715.00
Hemorrhoids	2	100.00
Herniotomies	2	150.00
Minor Surgery	33	208.00
Nose and Throat	2	55.00
Obstetrics	3	150.00
Orthopedics	13	500.00
Pathology	1	5.00
Radiation Therapy	-	--------
Tonsillectomies	9	315.00
Transfusions	-	--------
Urology	2	120.00
X-rays	13	89.50
Medical	1	12.00
	126	$ 4,587.00

Amount of claims in process of settlement—$2,000.00

NEBRASKA STATE DEPARTMENT OF HEALTH

Procurement and Use of Biologicals in Immunization and Testing Programs

REQUESTS FOR BIOLOGICALS

Biologicals necessary in immunization programs may be requested of the State Department of Health. For use in programs in the areas of the state having organized local health units, requests should be made to the director of the local unit. Such areas are:

1. Hall County-Grand Island—Hall County Health Department, Grand Island.
2. Sarpy, Otoe and Nemaha Counties—Sarpy-Otoe-Nemaha Health Depart., Bellevue.
3. Dodge and Saunders Counties—Dodge-Saunders Health Department, Wahoo.
4. Scotts Bluff County — Scotts Bluff County Health Department, Gering.
5. City of Lincoln—Lincoln Health Department, Lincoln.

Requests arising outside these areas should be made directly to the State Department of Health at Lincoln, or, for the western part of the state, to the West Nebraska Branch Laboratory, Scottsbluff.

Requests should be made well in advance of the immunization clinics and should state (a) identity of the organization sponsoring the immunization program, (b) the name of the physician or physicians responsible for the medical work, (c) the times and places of the clinics and (d) the number of individuals to be immunized (or tested) for each separate disease. Those organizing a program may request the material, but biologicals will be furnished or sent only to physicians who are to do the medical work.

STORAGE OF BIOLOGICALS

After receipt, biologicals furnished should be stored as provided by Rules and Regulations of this Department.

Smallpox vaccine should be stored in as cool a place as possible, preferably well below freezing temperature.

Material for tuberculosis testing should be stored in a cool, dry place. Refrigeration is unnecessary.

Other immunization material should be refrigerated in a dry place where there is no danger of freezing. Temperatures between 36° F. and 50° F. are suitable.

RECORDS AND REPORTS

Complete records of immunization or testing clinics should be kept. These should include the name and address of each individual receiving immunization treatment or test and the name of each such treatment to which each individual was subjected. The results of such treatments as smallpox vaccination, Schick test or tuberculin test should be recorded. Any unusual or abnormal reaction should be noted and recorded.

Patients or their families should be furnished individual record cards, signed by the physician and stating the facts of their immunization treatment or tests. Suitable cards are furnished along with the biologicals supplied by the Department of Health.

After the medical work of the program has been completed, a report should be made to the Department. This report should state the number by age groups of individuals subjected to each immunization or test and, in case of smallpox vaccination or skin tests, the number of "takes" or positive tests. Forms for such reports are supplied, usually along with the biologicals.

UNUSED BIOLOGICALS

Immunization material no longer needed should be promptly returned to the Departmental office from which it was secured. This should include material in excess of requirements, and outdated, but need not include opened and partially used vials of vaccines or other materials.

PARTIAL SHIPMENTS SOMETIMES MADE

In case of materials in which the immunizations consist of a series of injections, the initial shipment of supplies may be enough for the first series of injections only. Unused material from this series should be properly stored for use in the next series and a request made for additional material if needed.

MEDICAL INFORMATION

Specific information relative to medical details of immunizations or tests are not included in this bulletin. For these, reference is made to the manufacturers' directions which accompany each package of vaccine or other material or to standard medical literature. Especially worthy of note is the "Report of the Committee on Therapeutic Procedures for Acute Infectious Diseases and Biologicals of the American Academy of Pediatrics."

The following immunization and testing materials are furnished:

1. Smallpox vaccine—5 dose packages.
2. Typhoid vaccine, combined—2.5 cc. and 20 cc. bottles.
3. Diphtheria—tetanus toxoid—10 cc.
4. Diphtheria-tetanus-pertussis — one immunization and 3 immunizations size bottles.
5. Pertussis vaccine—one immunization and 4 immunizations size bottles.
6. Diphtheria toxin (Schick test)—10 test and 100 test size bottles.
7. Scarlet fever toxin (Dick test)—5 test and 50 test size bottles.
8. P.P.D. for tuberculin tests.

FRED LONG, M.D., Director,
Communicable Disease Control,
State Department of Health, Nebraska.

ROSTER OF NEBRASKA PHYSICIANS IN MILITARY SERVICE

As of October 15, 1946

ADAMS COUNTY
Shaw, W. L., Hastings
Uridil, C. F., Hastings

BUFFALO COUNTY
Albertson, L. C., Kearney
Dickinson, L. E., Ravenna
Hayes, C. B., Kearney
Wilcox, M. B., Kearney

CUMING COUNTY
Krause, Richard A., West Point
Robbins, H. M., West Point
Thompson, L. L., West Point

CUSTER COUNTY
Leonard, Patrick, Broken Bow
Pester, Geo., Broken Bow
Raasch, Richard, Broken Bow

DAWES COUNTY
McElligott, E. W., Chadron

DOUGLAS COUNTY
OMAHA
Avery, Hiram Henry
Barber, Herbert Gordon
Bowers, Warren F.
Carp, Oscar, Int.
Crawford, Wm. Henry
Curti, Ralph Elmer
Dolce, Daniel D., Int.
Dornberger, G. R.
Everitt, Neill J.
Fogarty, Chas. James
Gross, Jos. J.
Green, Chas. Joseph
Harms, H. H., Int.
Hartford, Thos. J.
Kemp, Wm. T.
Koutsky, Jas. John, Int.
Krieg, Jacob J., Int.
Lierman, C. E., Int.
Mooater, Chas. J., Int.
Patton, John Erwin
Peterson, Wendell Case
Reiner, Walter M., Int.
Senter, Vance E., Int.
Strand, Clarence Johnson

FILLMORE COUNTY
Tucker, John G., Milligan

GAGE COUNTY
Rush, Weaver A., Beatrice
Smartwood, F. M., Adams

HALL COUNTY
Johnson, E. George, Grand Island

JEFFERSON COUNTY
Lynch, Geo. M., Fairbury

KEARNEY COUNTY
Sutton, Bruce, Minden

LANCASTER COUNTY
LINCOLN
Colbert, Morgan R.
Everett, H. H., Jr.
Lotman, Harry Alfred
Sheldon, Keith
William, Russell I.

LINCOLN COUNTY
Anderson, Gustave Theodore, N. Platte
Anderson, Thorwald R., N. Platte

OTOE COUNTY
Campbell, G. C., Nebraska City
Thorough, Paul H., Syracuse

PAWNEE COUNTY
Harmon, Leo D., Pawnee City

RICHARDSON COUNTY
Youngman, R. A., Falls City

SAUNDERS COUNTY
Kasper, R. J., Wahoo

SCOTTS BLUFF COUNTY
Black, Eugene W., Gering
Hanna, Joe T., Scottsbluff

THAYER COUNTY
Panter, Lt. E. G., Hebron

VALLEY COUNTY
Round, John N., Ord

SOCIETIES

Secretaries of county and district societies are requested to send in the minutes of their meetings to The Editor, Mezzanine No. 3, Medical Arts Building, Omaha.

September 26 Dr. H. E. Eggers, state educational director for the American Cancer society, was the speaker at a special meeting of the **Garden-Keith-Perkins County Medical Society.**

Arrangements are being made by the medical society to provide speakers on the subject of "Cancer" to health organizations and service clubs.

The Richardson County Medical Society met for a 6:30 o'clock dinner party Wednesday evening, September 25, at Hotel Weaver in Falls City. The affair was attended by 15 members.

Following the dinner, Dr. H. E. Eggers, Omaha, gave a talk on "Cancer."

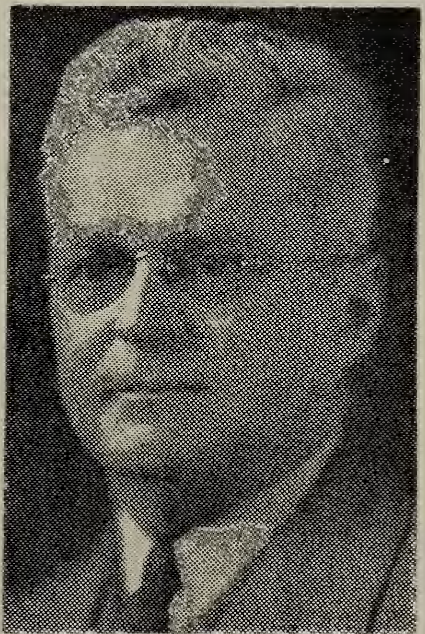
A Five-County Medical Meeting was held at Hotel Morrison, October 2, with 20 in attendance. Dr. Eggers of Omaha, spoke on the Early Diagnosis of Cancer; Dr. C. M. Coe spoke on Fractures, and Dr. Peters of Randolph, gave a short talk.

Six County Medical Society met Thursday, October 3, 1946, in the Hotel Waldorf at Norfolk, with dinner at 7 p.m. The program: Dr. Edmund Walsh, Omaha, "Medical Management of Hypertension, and Selection of Cases for Sympathectomy;" Dr. A. J. Schwedhelm, Norfolk, "Remarks on Decortication."

The Tri-County Medical Association meeting was held in Dalton Monday evening, September 30, with Dr. and Mrs. J. B. Pankau as hosts. Dinner was served at the Dalton Cafe and after dinner hours were spent at the Pankau home. The doctors' wives enjoyed a social hour while the doctors were engaged in the business session. Attending were Dr. and Mrs. H. A. Blackstone of Bridgeport, Dr. A. H. Shanberg and Dr. and Mrs. Carl Manganero of Kimball and Dr. Manganero's brother, Dr. Frank Manganero, Lt. H. P. McGinnes and Lt. M. R. Salkin of the S. O. D., and Dr. and Mrs. C. B. Dorwart, Dr. and Mrs. B. H. Grimm, Dr. and Mrs. C. H. Babbitt, Dr. and Mrs. Hull Cook, and Dr. and Mrs. Chris Bitner of Sidney.

DEATHS

Torrance Calvin Moyer, Lincoln. Born in Pennsylvania in 1888. Graduated from Union Seminary, Pennsylvania in 1908, and from the University of Nebraska in 1911. After teaching school for a short time he returned to the University to graduate from the Medical College with an M.D. degree


DR. TORRANCE C. MOYER

in 1914. He served his internship at the Wise Memorial Hospital in Omaha, and in 1915 came to Lincoln to enter practice with his uncle, the late Dr. C. C. Moyer. During World War I he served in the Army Medical Corps as a tuberculosis specialist and as consultant for the Base Hospital at Camp Lee, Virginia. Dr. Moyer was active in the Scottish Rite, in the Shrine, and many other fraternal and civic organizations. He was a fellow of the American College of Physicians and of the American College of Chest Physicians, a diplomate in the American Board of Internal Medicine, and a member of the Trudeau society and of the American Heart Association. He was also active in his local county medical society having served as president. He also served as president of the Lancaster County Tuberculosis Society. Dr. Moyer was stricken with a coronary attack on September 8, 1946, while playing golf at the Lincoln Country Club. He was taken immediately to the hospital and died a short time later. Surviving are Mrs. Moyer and two daughters.

Robert G. Henderson, Falls City. Born in Nebraska in 1871. Graduated from the Kansas City Medical College in Kansas City in 1900. He located in Rulo where he remained for 20 years, moving to Falls City in 1920. He had practiced in Falls City ever since. Death occurred on September 25, 1946, when the doctor was stricken with a coronary attack. Dr. Henderson is survived by his wife.

Alma Josephine Chapman, York. Born in Iowa in 1872. Graduated from University of Nebraska College of Medicine in 1897. Dr. Chapman came to York in 1921 from Hastings where she had been attendant physician at the State Hospital, to become superintendent of the state reformatory for women. She continued as head of that institution until 1936 when she retired. Death occurred September 7, 1946. There are no immediate survivors.

Charles Michael Hauslein, Omaha. Born 1872. Graduate of Rush Medical College in 1900. After a period of postgraduate work in Berlin and Vienna he located in Scribner where he stayed for several years, later moving to Omaha where he maintained an active practice until four years ago when he retired because of ill health. He died September 8, 1946. Surviving is the widow.

George Albert Weirick, formerly of Hastings. Born in 1862 in Ilinois. Graduated from the University of Iowa in 1885. Settled in Hastings in 1892 where he specialized in eye, ear, nose and throat. Died in Elgin, Illinois, October 2, 1946.

HAVE YOU SOMETHING FOR PARERGON?

The new edition of Parergon is now in preparation. If you wish to have any of your art works* considered for inclusion in the forthcoming edition (over 750 pictures) please mail perfect glossy photo prints (8x10 preferred) immediately by airmail to Editor, Parergon, Mead Johnson & Company, Evansville 21, Indiana, U.S.A.—now!

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HUMAN INTEREST TALES

Communications bearing human appeal are solicited. They should be addressed to The Editor, Nebraska State Medical Journal, Mezzanine No. 3, Medical Arts Building, Omaha.

Dr. W. R. Hamsa, Omaha, spent a week in September at the Sister Kenny Institute and the University of Minnesota Hospitals for study of infantile paralysis treatment.

Dr. W. S. Quisenberry, formerly of the Nebraska State Health Department, has been appointed acting head of the Department of Public Health in the Medical School in Los Angeles.

Congratulations to Dr. and Mrs. R. P. Carrol of Laurel upon the 25th anniversary of their marriage on September 20. It was also the date of the doctor's 25th anniversary of his medical career.

Dr. H. C. Hanson, Kearney, attended the allergy clinic, held in Milwaukee, of the Wisconsin Medical Association in September. The doctor is also scheduled for postgraduate work in Chicago.

Dr. A. E. Bennett, Omaha, president of the Central Neuropsychiatric Association, presided at the Annual Meeting in Denver, Colorado, October 4 and 5. The title of his address was "Mad Doctors."

Dr. Louis E. Moon, Omaha, gave a paper entitled, "Management of Lesions of the Terminal Column," before the 24th Annual Session of the Kansas City Southwest Clinical Society at Kansas City, Mo., on October 10.

Dr. Hodson Hanson of Minden is connected with the pathology department at the Nebraska Methodist Hospital in Omaha. He is associated with Dr. Schenken. Dr. Hanson was recently discharged from the Navy Medical Corps.

Dr. Muriel Frank, graduate University of Nebraska College of Medicine in 1943, has been appointed to the Department of Physiology and Pharmacology as a special fellow under the sponsorship of Parke Davis and Company.

Dr. Frank Conlin, Omaha, was appointed to fill the unexpired term of Dr. Charles H. Best on the Council of the American Diabetes Association at its meeting in Toronto on September 22. Dr. Best, co-discoverer of insulin, was elected president.

Dr. J. E. M. Thomson has returned to Lincoln after a three months' absence spent in Czechoslovakia as a member of the Unitarian Medical Teaching mission. Enroute home he stopped in London and with British Orthopedists visited Birmingham and Lancaster, England.

Nebraska physicians who appeared on the program of the American Urological Association's 25th annual meeting at Hot Springs, Ark., in September, are Drs. W. J. McMartin, Omaha, secretary-treasurer, and program chairman; Dr. Payson Adams and Dr. W. F. Novak, Omaha, and Dr. A. D. Munger of Lincoln.

Dr. L. C. Kavan, recently separated from the Army Medical Corps, has located in Schuyler. Dr. Kavan was graduated from Harvard Medical School in 1942. Following graduation he served as a surgical officer in Boston City Hospital for a year. Dr. Kavan is a son of Dr. and Mrs. W. J. Kavan of Clarkson.

(Continued on p. xxx)

FACTS ABOUT THE PREPARATION OF

Campbell's STRAINED **BABY SOUPS**

Q. How are meats prepared for the soups?

A. The full protein and other nutritive values in meat are available only when the meat solids as well as the juices of meat are used. Campbell's method of comminuting the meat—superior to the "scraping" common in home use—assures that all the edible solids as well as all the juices are included. Four of the Campbell's Strained Baby Soups have a meat base: Chicken, Liver, Lamb and Beef.

Q. How are vegetables prepared for the soups?

A. Both the flavor and the nutritive values of vegetables naturally depend in great part upon the way they are handled and cooked. Campbell's have developed a method, based on the latest scientific knowledge, which retains the minerals and efficiently conserves the vitamins, as well as the wholesome natural flavors.

Q. How early may these soups be started?

A. That depends entirely upon the individual baby and the physician's judgment. However, these soups are intended for use as early as any strained baby food. The soups are not seasoned (except for light salting) and are of smooth texture and uniform consistency. A comprehensive analysis of each soup may be had upon request to Campbell Soup Company, Camden, New Jersey.

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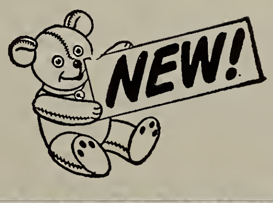

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An Announcement

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Spencer Supports have been approved for purchase by the Veterans Administration through its Regional Offices, Hospitals, Homes and Centers. Purchases are authorized on the prescription of doctors cooperating with the Veterans Administration, including those who are treating veterans on an out-patient basis in their home communities.

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- Spondylarthritis
- Postural Syndrome
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- Visceroptosis or Nephroptosis With Symptoms
- Spinal or Abdominal Postoperative

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HUMAN INTEREST TALES

(Continued from p. 476)

Dr. Adolph Sachs has returned to Omaha from a five weeks' vacation in California.

Dr. J. D. Kovar, recently separated from the service, has opened an office in Hartington.

Dr. W. A. Rush, Beatrice, has joined the staff at the Veterans Bureau in Kansas City, Mo.

Dr. J. A. Waggener, who has practiced in Humboldt for 68 years, has retired at the age of 94.

Dr. Paul T. Cash, Omaha, was elected to active membership in the Central Neuropsychiatric Association.

Dr. J. Jay Keegan of Omaha delivered an address before the Harvey Cushing Society in Boston in October.

Dr. C. K. Elliott has resumed his practice at Lincoln upon receiving his discharge from the Army Medical Corps.

Dr. Louis Dickinson, Ravenna, is taking postgraduate work in medicine at Washington University, St. Louis.

Dr. George J. Allison, graduate of the University of Nebraska College of Medicine, has opened an office in Ralston.

Dr. Robert C. Cowger has opened an office in Sutton. He was recently discharged from the U. S. Navy Medical Corps.

The sympathy of Journal readers is extended to Dr. Francis S. Rudloff, Battle Creek, upon the recent death of his wife.

Dr. Charles Hankins is associated with Dr. Frank Conlin at 1414 Medical Arts, Omaha, in the practice of internal medicine.

Dr. Horace Shreck, Holdrege, has taken a residency at Bellevue Hospital, New York City, in eye, ear, nose and throat work.

Dr. Lucien Stark, Norfolk, attended the meeting of the American Diabetes association, held in Toronto, Canada, in September.

Dr. and Mrs. G. Alexander Young, Sr., and Dr. and Mrs. G. Alexander Young, Jr., have returned to Omaha after a summer's vacation in California.

Dr. Harold S. Morgan announces the association with him of Dr. S. L. Wolters in the practice of obstetrics and gynecology at 935 Stuart Bldg., Lincoln.

Dr. Frank Cline recently separated from the Army Medical Service has accepted a residency in medicine in the University of Colorado at Ft. Logan.

Dr. Michael Crofoot recently discharged from U. S. Navy Medical Corps, has opened an office at 1407 Medical Arts, Omaha, for the practice of pediatrics.

Dr. L. Daniel Dieter, Nebraska City, attended the Accident Surgical Clinics, sponsored by Columbia University in New York City Hospitals, in September.

Dr. Robert Baker will assist Doctor G. A. Morehouse in his practice at Benkelman. The doctor is a graduate of the University of Illinois College of Medicine.

Dr. Paul W. Tipton, Omaha, took a two weeks' intensive course in electrocardiography and heart at Cook County Graduate School of Medicine, Chicago, in August.

Dr. W. Riley Kovar has closed his office at Clarkson to take postgraduate work in obstetrics and gynecology at the University of Pennsylvania, Philadelphia.

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INDUSTRIAL HEALTH CONGRESS DRAWS 700 HEALTH LEADERS

Nearly 700 specialists in industrial health from every state in the union attended the seventh annual Congress on Industrial Health, held in Boston, September 30 to October 2. The three day meeting featured new procedures, technics and policies developed in the field of industrial medicine during the war years.

The congress was sponsored by the Massachusetts Medical Society, the Council on the New England State Medical Societies and the Council on Industrial Health of the American Medical Association. The program itself was arranged by Drs. Carl M. Peterson and Harold R. Hennessy of the Council on Industrial Health of the A.M.A., Chicago.

Dr. Peterson, who is executive secretary of the Council, said that "these meetings provide an opportunity for the American Medical Association, labor and management to discuss the medical and health problems facing the industrial workers of America."

Following are some of the highlights of more than a score of papers read at the meeting:

DISPELS "LEAD POISONING" MYTH

Felix E. Wormser, secretary of the Lead Industries Association, New York, assailed the popular belief that eating paint from cribs and toys is a source of lead poisoning among children. "Our investigations cast grave doubts on nearly all of these cases," he said. "This might be expected because crib and toy manufacturers do not use lead paint on their products. Other paint pigments are cheaper and make a harder enamel than is obtainable with lead. Lead paint, because of its extraordinary durability, finds its chief application on exteriors, not on furniture. Hence, the risk to children from chewing painted surfaces on cribs and toys is nil so far as lead poisoning is concerned."

KEY MEN NEED LONGER VACATIONS

Earl F. Lutz, M.D., associate medical consultant of the General Motors Corporation in Detroit, proposed that employees in the management group of industry should take at least a month's vacation in order to maintain their health. This proposal was stimulated by the experience of GM's medical department which found that 189 men in the top brackets had died in a five year period preceding 1944. A study was undertaken and it was found that deaths from angina pectoris, coronary thrombosis or occlusion, cerebral hemorrhage or apoplectic strokes were prevalent among the executive employees who were subject to extended hours of work, excessive travel and unusual mental strains due to the increase of responsibilities which the war effort demanded.

GOOD NUTRITION BASIC FOR HEALTH

Ancel Keys, Ph.D., director of the Laboratory of Physiological Hygiene at the University of Minnesota, Minneapolis, told the assembly that "good nutrition must be a basic in improving both the well-being and work productivity of the employee. This country can easily produce and distribute all the food needed. Much more and much better research will be needed to insure its most effective use."

Louis Schwartz, M.D., Medical Director Chief, Office of Dermatology, U. S. Public Health Service, Bethesda, Md., pointed out a way to fight the

(Continued on p. xli)

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and TREATMENT of ALLERGIC DISEASES

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INDUSTRIAL HEALTH CONGRESS DRAWS 700 HEALTH LEADERS

(Continued from p. xxxiv)

spread of such fungous infections as "athlete's foot" in industrial plants. He suggested that each worker wear wooden-soled bathing slippers in locker and shower rooms.

CLINICAL RESEARCH IN INDUSTRY

Walton Van Winkle, Jr., M.D., secretary of the Therapeutics Trials Committee of the Council on Pharmacy and Chemistry of the American Medical Association, said that clinical research, which has led to many great discoveries in the field of medicine, has a place in industry, but it "is not something to be done in a spare moment. If a health problem requires study or a clinical trial, a competent and responsible investigator should devote his full time to it. If this cannot be done, it is better to abandon the project than to do a poor investigation which, when finished, does not provide a satisfactory answer." He added further that "the waste of time and money involved in the performance of worthless clinical investigation is enormous."

EUROPE DELAYING ATOMIC DEVELOPMENTS

Samuel K. Allison, Ph.D., director of the Institute for Nuclear Studies at the University of Chicago, blamed unsettled conditions in Europe for the delay in applying atomic power to industry and the physical sciences. "The fear that other countries will develop atomic weapons before any reliable plan is worked out to insure world peace is holding up the dissemination of information necessary to peaceful atomic developments," he said.

AMERICANS—WORLD'S HEALTHIEST PEOPLE

Morris Fishbein, M.D., editor of The Journal of the American Medical Association, pointed out that "the available facts and figures show that the American people are today the healthiest people in the world. Our sickness and death rates are among the very lowest of all the great nations. Nevertheless, there are still evidences of physical deficiencies in some of our population which are capable of prevention and in some instances of correction. The men who were rejected by Selective Service because they could not meet the highest physical or mental standards established for military service by any army could in a good many instances have been made physically fit had the abilities that medicine has to offer been made available to them from the time of their conception until they came before the Selective Service board. Many registrants were pampered and soft and in need of physical conditioning. It is folly for a nation as wealthy and efficient as ours to fail in its utilization of what medical science has to offer for developing a nation that is physically fit," he said, adding: "Not every person who is mentally or physically unfit can be benefited. There are defects that are not preventable. Perhaps 1,500,00 of the 4,000,000 who were rejected could not have been freed of their disabilities nor been greatly benefited by the application of medical facilities. Nevertheless, 2,500,000 could have been made more effective in the occupations which a good many of them filled satisfactorily in civilian life."

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CONGRESS ON MEDICAL EDUCATION AND LICENSURE TO MEET

The 43rd annual session on medical education and licensure and related topics will be held at the Palmer House in Chicago, February 10 and 11, 1947, under the auspices of the Council on Medical Education and Hospitals of the American Medical Association and the Federation of State Medical Boards, according to an editorial in the October 12 issue of The Journal:

The editorial states:

"The termination of the war and the demobilization of the army have produced problems which in many ways surpass in difficulty those created during wartime. The extreme overcrowding of undergraduate universities and colleges, the reconversion of the medical school programs, the unprecedented demand for residency training and the affiliation of medical schools with veterans' hospitals are a few of the important issues to be met. This 43rd annual congress promises to be of unusual significance. The congress provides an opportunity for special meetings of several national groups concerned with medical education, hospitals and licensure. These include the Executive Council of the Association of American Medical Colleges, the Advisory Board for Medical Specialties, the National Board of Medical Examiners and several others. Reservations at the Palmer House should be made at once. It is important that the request for reservations be addressed to Mr. Frank Anton and that mention be made of the Annual Congress on Medical Education and Licensure."

CLASSIFIED

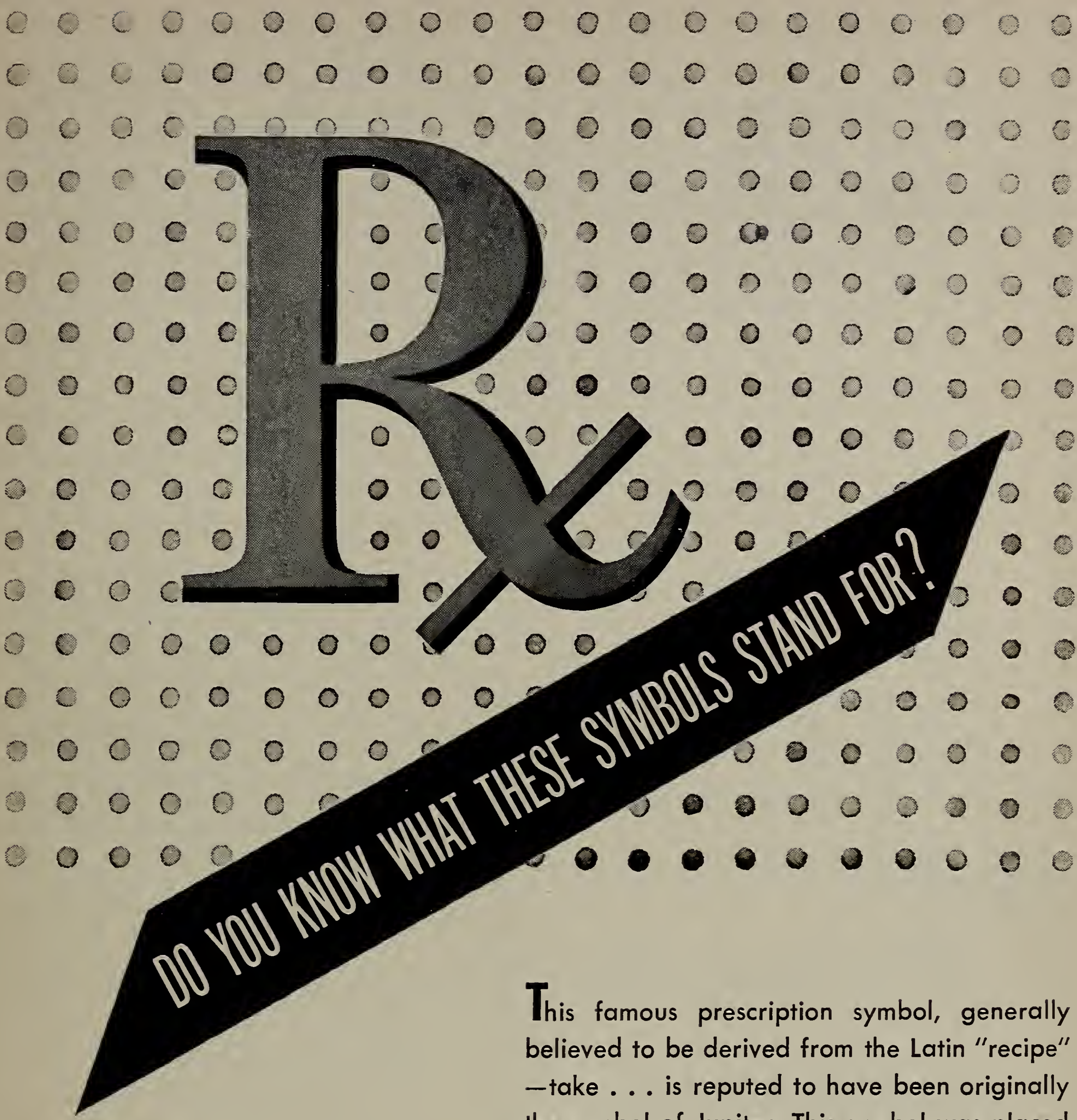
FOR SALE—General Electric electrocardiograph machine in A-1 condition, 5 years old, reasonable. Can be seen at 901 Federal Securities Building, Lincoln, Nebraska, Dr. L. E. Marx.

Friedman Pregnancy Test requires only 48 hours. Write for mailing tube and vial. Established 1938. Price $5.00. Pregnancy Diagnostic Laboratories, Dysart, Iowa.

FOR SALE—Eleitz Wetzlar microscope. In perfect condition. Write to G. T. Warren, D.D.S., 1212 Fed. Sec. Bldg., Lincoln, Nebr.

FOR SALE — Instrument cabinet (Hamilton steel), black and white; examining table (Hamilton steel); large infra-red lamp; small portable infra-red lamp; Tompkins rotary compressor; 16-inch Castle sterilizer; National cautery.

Mrs. W. Riley Kovar,
Clarkson, Nebr.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THE NEBRASKA STATE MEDICAL JOURNAL

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EDITORIAL

ORGANIZED MEDICINE IN THE LIGHT OF RECENT ELECTIONS

The repudiation of the 79th Congress by the people of this country may be interpreted as a reaction against centralized control by a constantly increasing political bureaucracy. Apparently this nation neither needs nor desires personal security originating in Washington and administered on the paternalistic pattern. What the average American seeks is a decent living and a right to do his own thinking and his own protecting of himself and of his family. That is the philosophy on which he was brought up and it is this same philosophy which has made the United States the greatest nation on this earth. It was also in the pursuit of this love for freedom of the individual that Americans gave all they had—many their lives to defeat Kaiserism in 1918 and Nazism in 1945.

To what extent the new Congress will maintain or delimit existing bureaus, or whether it will extend its powers over present controls, remains to be seen. Judging from its pre-election platform we may expect more encouragement of free enterprise and less meddling with regulations and restrictions of our economy.

The outlook for traditional medical practice, we believe, is more favorable than it was under the 79th Congress. This does not mean that we may relax completely in our efforts to stave off compulsory measures. The social philosophers will not yield their ideologies because of a mere setback. They will undoubtedly redouble their energies and strengthen their propaganda toward their well-known goal. Reformers do not take "no" for a final answer. They consider defeat as a challenge calling for a renewed zeal, with their eyes and ears ever on the alert for an opportunity to emerge at the right time and in the right quarters, with the same ideology and the same hue.

For our part we must consider the Congressional change as a period in which we have an excellent opportunity to strengthen the cause of progressive medicine. Our task is simple: On an organization level from the American Medical Association down to the county units programs are now available whereby the public may become aware of the accomplishments of medicine under a system free from political regulations and bureaucratic restrictions. These should be utilized wherever feasible. The voluntary prepayment plans are constantly gaining in popularity, and no family of modest income now has to live a life of anxiety over burdensome and unpredictable hospital, medical, and surgical fees. These plans should be enhanced in scope of coverage to make medical expenditures a budgetable necessity for every self-supporting family.

On the individual level each physician who values the dignity and respect of his calling should consider himself an active representative of the profession and utilize every possible opportunity to acquaint his patients with the advantages of the American system of medical practice. He must not take it for granted that the people are automatically conscious of the fact. They have heard, and will continue to hear about the "blessings" of free medical care. There was a time, and not too long ago, when the horizon looked terribly gloomy for our side. Many of us believed that it was too late to avoid a catastrophe. Thanks to the common sense of the American people we have escaped being ensnarled in governmental red tape. It is our responsibility now to justify their faith in our ability to solve our own problems.

MENTAL HYGIENE IN NEBRASKA

According to a recent public press release, Governor Dwight Griswold was contemplating a request to the federal government for a "loan of several mental health experts to conduct a study in Nebraska." The State Health Department was named the sponsoring agency by Attorney General Walter Johnson in compliance with the public law that where federal moneys are to be utilized "a state mental health authority" must be the sponsor of such a study. We commend Mr. Johnson for his legal opinion because it coincides with the present monistic concept of health. The logic in dividing health into physical and mental categories ends in the classroom and even there the line of demarcation rests only on a precarious basis of convenience in teaching.

It is needless to emphasize here that a person may be incapacitated by mental illness to the same degree as by physical illness. Also, most of us, by tradition or intuition, and many of us through recent impetus, utilize the principles of psychosomatic medicine daily with our patients. We know a good deal about the interrelationship of mind and body, and the vast majority of those under our care is receiving the benefits of this knowledge. Cases requiring special techniques in psychotherapy are referred to experts in that field. Yet with all our awareness of the devastating effects of mental disease, in the light of our achievements in teaching general preventive medicine, there is today a woeful lag in the sphere of mental hygiene. It is time that physicians make a spontaneous effort to acquaint their patients with the principles of mental health. It is unfortunate that in many instances advice on social and emotional problems is withheld until these problems have become complicated, annoying, unbearable, and not infrequently masked beyond simple recognition.

If the public is to derive full benefit from what is now known about mental hygiene, two prerequisites must be fulfilled. 1. The physician must train himself to emphasize to his patients the importance of sound living. He must be in the position of evaluating the social, emotional, and economic status of the individual under his care with the same interest with which he now evaluates the patient's nutritional, cardiac or neurologic status. In his pediatric care he must issue advice on emotional and social development of the child in the same systematic procedure that he now employs in prescribing a feeding program or in administering immunizing agents. The practice of mental hygiene is no more and no less involved than the practice of physical hygiene.

2. The State Health Department must incorporate mental hygiene into its current program of public health education. A Division of Mental Hygiene is in order and it is our understanding that such a Division may be established in a way similar to other divisions now functioning under the Department of Health (M.C.H., V.D., etc). The mental hygiene movement is rapidly approaching the half-century mark. It has gone through all the vicissitudes of infancy, childhood, and youth, and has emerged with dignity and decorum ready to contribute its part to the betterment of a world torn by war, and greed, and intolerance.

It is doubtful that mental hygiene is a social panacea. It is, however, incontestably a part of health, and as such it has a highly significant place in the practice of medicine and public health.

THE CHILD STUDY QUESTIONNAIRE

As was previously stated in the pages of this Journal, the American Academy of Pediatrics is conducting a survey about the facilities for child care in the United States. The study was undertaken in an effort to arrive at reasonably accurate facts. The American people should know the truth regarding these facilities and the extent to which they are being utilized. At the present time they have to rely on figures which tend to emphasize one or the other extreme. The survey is being conducted among doctors and will be evaluated by doctors. With the cooperation of the profession the results will serve as an index to a judicious approach on what, if anything, may be required to improve the services to our child population.

If you have not yet filled out the questionnaire please do so at your earliest convenience and forward the blank to Mr. Smith's office.

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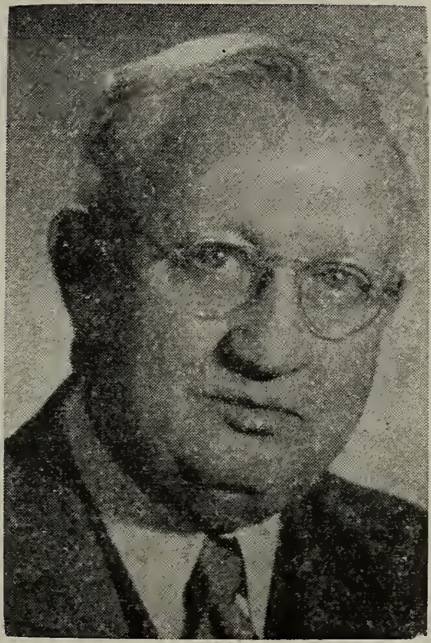

PRESIDENT EARLE G. JOHNSON
Grand Island

Dear Friends:

We approach the second Yuletide season following cessation of four years of unprecedented destruction known in the history of the human race. One would think that suffering and privation, and death of millions of loved ones would sober man's thoughts and give way to honesty and reasoning in his conduct. Yet nations are still bickering and statesmen are still irritating one another. Peace on earth and good will among men appear all too distant for comfort and security. May I express the hope and the prayer that the coming year will bring forth a philosophy that will enable the inhabitants of this earth to see the futility of national and personal antagonisms, and will start us on the road to peace and good will so that all nations and all peoples may follow the teachings of Him whose coming we are celebrating this month.

With these wishes, I remain,

Sincerely yours,

EARLE G. JOHNSON, President.

SYMPOSIUM

A Few Remarks on Rehabilitation with the Presentation of a Model Community Service and Center*

A. R. SHANDS, JR., M.D.
Alfred I. du Pont Institute
Wilmington, Delaware

No phase of medical care has become of greater importance during the period of this war emergency than the rehabilitation of the sick and wounded. It has been the means of saving millions of work days to industry and the Armed Forces, and millions of patient days to the Hospitals. The monetary value of rehabilitation to the overall war effort can never be computed. The numerous peacetime applications of the lessons learned from the tremendous volume of military experiences overseas and in the continental United States in rehabilitation are now becoming more evident to the workers in the civilian agencies. The purpose of this paper is to present to you a few phases of rehabilitation which may be considered for a community program, adapted from some of these military experiences.

My best knowledge of rehabilitation was obtained during the war when I acted for over two years as the orthopaedic advisor to the rehabilitation services of the Army Air Forces. During the last 18 months of this time, I was a member of the Baruch Committee on Rehabilitation and worked rather closely with Colonel Howard A. Rusk (Chief of the Army Air Forces Convalescent Rehabilitation Program) on the Sub-Committee on Civilian Rehabilitation Centers†. This latter group has planned and blue-printed a model civilian rehabilitation service and center, which basic plan it is believed can be modified to meet the needs of any urban or rural community. It is a civilian application of many of the lessons learned in the Armed Forces.

First, what place does rehabilitation occupy in medical care? It has been stated that there are three large divisions of the practice of medicine, namely: Prevention, Diagnosis and Treatment, Convalescence and Rehabilitation. The first of these, prevention, is the primary responsibility of the Public Health Agencies. The second, diagnosis and treatment, is carried out by the medical profession and hospitals. The third, convalescence and rehabilitation has generally been the neglected child of this medical family, and whether it has been satisfactorily effected without the aid of an established program has been largely a matter of chance. The orthopaedic surgeons, with the predominance of long-term cases in their practices, have always recognized the importance of a comprehensive and well rounded program of convalescence and rehabilitation, and in a few communities have had limited programs in operation. However, the average busy physician or surgeon, when the actual medical treatment has been completed, usually feels his job is done. Perhaps in the old days of the time-honored family physician, the full program of medical care and rehabilitation was carried on by the one physician, but in these days, such is seldom effected by the doctor. However, the actual medical care can only be considered the first step in the restoration of the patient to optimal health. A rehabilitation service should now take over and complete the job.

The opinion has been expressed that at least a majority of the veterans who are 100 per cent disabled can be rehabilitated to a point of being employable with good selective placement. Further, it has been stated that up to 97 per cent of all handicapped persons can be rehabilitated to the extent of gainful employment. It should be pointed out that in rehabilitation, the transformation of the physically handicapped individual into a useful, self-supporting citizen with a good social and economic adjustment is not a chance happening, but the result of a careful plan which includes the active cooperation of many members of a reconstruction team. This team of workers should consist of the physician, the psychologist, the physical therapist, the occupational therapist, the social worker, the vocational teacher, the director of vocational guidance, the vocational placement worker, and, sometimes other consultants in special fields. During the medical reconstruction period the physician is the captain of this team, but when the maximum physical benefits and function have been obtained, the doctor becomes the advisor and the trained rehabilitation worker the captain. It should be remembered that all medical reconstructive treatment is to a large extent governed by the considerations of vocational rehabilitation. For example, an operation to increase the mobility of a major weight-bearing joint, such as a hip or a knee, is obviously not to be performed if it has been decided that the patient is to have a job which will require him to stand for long periods in his work. End-result statistics show that such an operation may be followed by pain and weakness in the hip when it is subjected to excessive activity or prolonged weight-bearing. In this instance, an operation to ankylose or stiffen the joint would be the procedure of choice.

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*Presented at the Annual Sessions of the Nebraska State Medical Society, Lincoln, Nebraska, May 9th, 1946.

† The other members of the Sub-Committee are Doctor George D. Deaver, Medical Director of the Institute of Crippled and Disabled of New York City, Doctor C. M. Peterson, Secretary of the Council on Industrial Health of the American Medical Association, Mr. Michael J. Shortley, Director of the Office of Vocational Rehabilitation of the Federal Security Agency and Mr. Lawrence J. Linck, Executive Director of the National Society for Crippled Children and Adults.

Once the disability has received full medical care, the planning for vocational retraining (rehabilitation) should center around the permanent physical handicap. Consideration must be given to the intelligence quotient of the patient, his educational status, his adaptability, and, finally, to his interest. After all of these variables have been carefully weighed, the most promising vocational rehabilitation program should be selected.

Often the importance of the psycho-social aspects of rehabilitation is lost sight of. This must be carefully evaluated and if it does appear to be a factor in the case, it should be given very careful attention. A very clear example of the importance of the psycho-social side of this rehabilitation is the following story of a soldier returning from the war in the Southwest Pacific after a two-year tour of duty: He was sent to one of the Army Air Forces Convalescent Hospitals. The doctors found his body physically normal, but he was mentally upset. He was hard to engage in conversation, was morose, and apparently wanted to be by himself. After being in the hospital several weeks and the physicians being unable to break through his "mental shell," he asked for a pass to go home. Upon inquiry of the reason why, he replied that while he was overseas that he had heard that his wife had been unfaithful. He wanted to go home to see what had been happening to his family. Three nights later after going home he returned. Upon making rounds the next morning the physician found that there were two in his bed instead of one. He had returned with his three year old son. He found that his wife had fallen in love with another man and wanted a divorce, and that his young son had been neglected. Since there was no one to care for the boy at home, he had returned with him. The social worker in the hospital arranged his divorce, put the child in a foster home and the confused mental state cleared up almost immediately. He was discharged from the hospital by all objective criteria a well man ready to go into full time employment. This is illustrative of the side of rehabilitation which has little to do with actual medical care, but the judgment involved in knowing what to do is of equal or greater importance than the judgment a surgeon needs in rendering a decision for an operative procedure.

A rehabilitation service in a community affords the opportunity which the handicapped are looking for, and a rehabilitation center becomes a house or laboratory of opportunity for the crippled and disabled. Those severely handicapped by disease or accident, whether this occurs in war, in the home or on the street, all have the desire to become normal. They should at once be given a goal to strive for, especially if they have lost an arm or leg and a vocational readjustment is necessary. If they are allowed to lose hope, become depressed through days, weeks or months in hospital beds, or at home, the will to recover may be lost, mental lethargy may take place and all of the wheels of rehabilitation may never be able to restore the inner motivation so necessary to overcome a handicap. This mental state can often be avoided through early projects of reconditioning and rehabilitation, starting in the hospitals and homes.

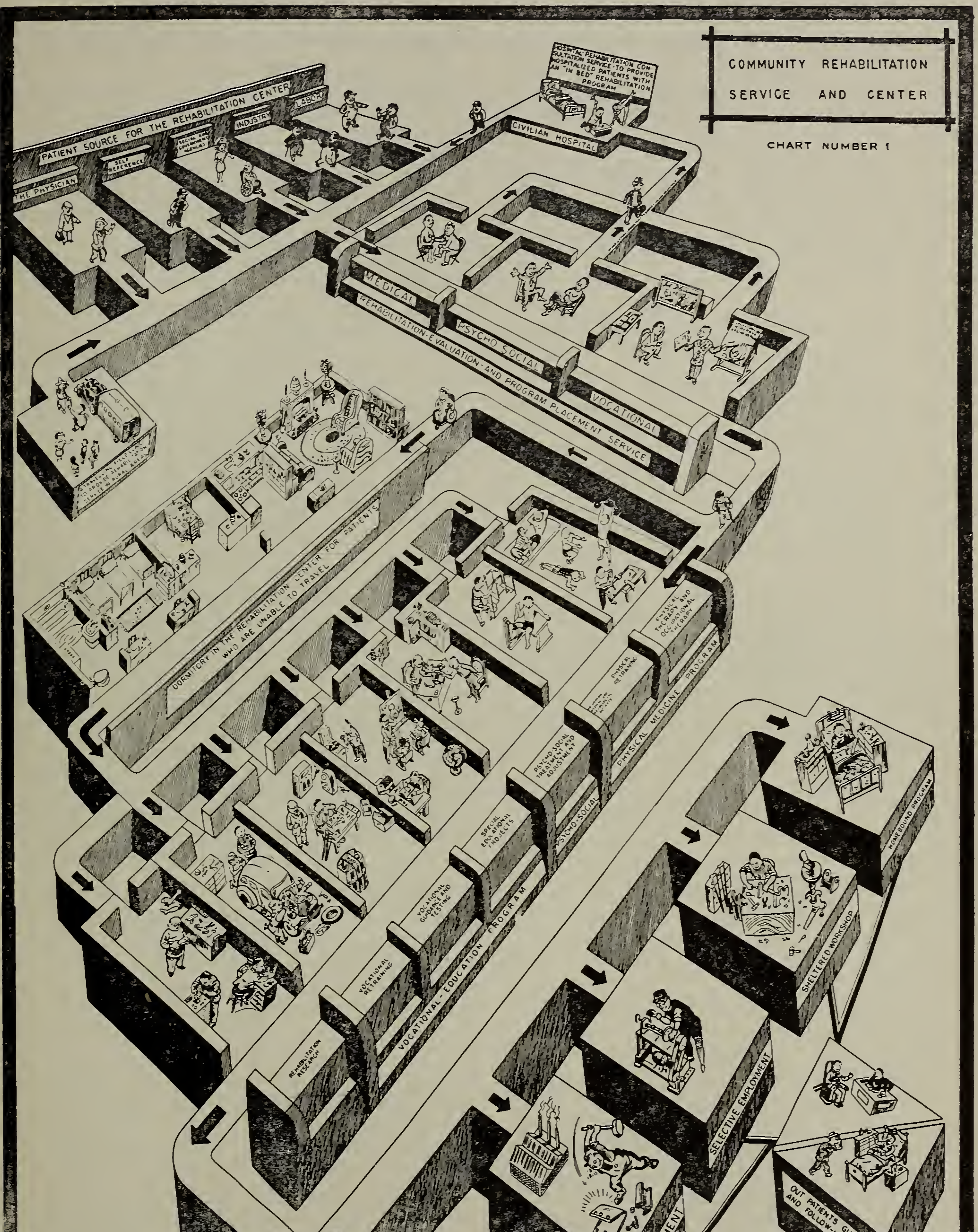
Sometimes the compensation or pension laws are such that a disabled man is too well paid for doing nothing, and if he is rehabilitated to the point of becoming employable, he may receive less compensation than when disabled. This situation may be accompanied by a complete lack of incentive to get well. To overcome this situation it has been suggested that the veteran or workman be offered a special bonus for his early return to work. Statistics are available on the average disability time for certain injuries. If the disabled man returns to work in less than the average time, the employer or insurance carrier paying his disability benefits saves money. This bonus would not only be profitable for the employer but for the employee. This extra monetary benefit might prove to be the real motivation necessary to put this disabled person back to work in record time and save him from a life of dependency and maladjustment.

The question is constantly asked, "What is the extent of the problem, and how many individuals in need of rehabilitation are in each community?" Your state vocational rehabilitation office knows the answer for the communities of Nebraska. For the whole United States, it is known that 350,000 persons between 15 and 64 years of age are disabled by automobile accidents alone each year. The normal annual increase before the war for those completely unemployable unless rehabilitated was 100,000; it is thought to be higher since the war. At the present it has been estimated that approximately 8,000,000 men of working age in the United States (and some say equally as many women) or 6 per cent of the total population are disabled to the extent of needing physical or vocational rehabilitation or special placement aids. During the four year period of the war, in the Armed Forces there were approximately 17,000 amputations. In the civilian population during the same period, there were approximately 120,000 amputations, seven times as many. It has been estimated that 10 per cent of all the men discharged from the Armed Forces will have some form of disability. This will be one and one-quarter million. This gives to you a few figures concerning the national scope of the problem.

The question is asked, "What is the economic return from vocational rehabilitation?" During 1944, approximately 44,000 persons received the benefits of vocational rehabilitation in all the State and Federal programs. Prior to rehabilitation, the average annual wage per individual of this group was $148. After rehabilitation, it was $1,768, or approximately twelve times as much. Twenty-two per cent of this number had never been gainfully employed before rehabilitation and nearly 90 per cent were not employed at the start of rehabilitation. The annual cost of public assistance to this group had been from $300 to $500 per case, the total cost of rehabilitation averaged $300 per case. In the small State of Delaware during the year 1945, 246 persons were rehabilitated and placed in employment with an average earning of $36.00 per week, or $1,872 per year; $460,000 was earned by this group for the year. Before rehabilitation, the earnings of this group were practically nil, as many of these persons had never been employed. The total earnings of this group was nine and a half times the entire cost of operating the State program in Delaware. This certainly demonstrates the sound economy behind the state and federal vocational rehabilitation programs.

In the establishment of a community rehabilitation center there must first be a survey of the local facilities and available trained personnel. The work of the various agencies and organizations in the community must be studied and thought given concerning how this personnel and facilities can be integrated into a program. It must be found out what facilities for physical therapy are available in the local hospitals, how the physical education departments and teachers in the schools can be used for physical reconditioning of patients, what the social workers from the county health program can do to find the patients and adjust the home problems, how much time the academic and vocational teachers in the schools can give, what the physicians can do towards the medical survey, whether a psychologist is available, and, finally, what the personnel of the state vocational rehabilitation and placement agencies can do to help in the program. In the present day, nearly all of this personnel is to be found in every city or town. The coordination and integration of their activities into a community rehabilitation service can be effected in every town or city, whether small or large.

Before an actual beginning is made, especially with a program of vocational rehabilitation, there must be a survey of jobs in the community with a determination of what jobs can be filled by what types of handicapped, for the key to vocational rehabilitation lies in industry. The small employer of labor, i.e., the shopkeeper, the garage manager, etc., should be approached and "sold the idea" of employing handicapped persons. The big corporations have already had proven to them that a crippled man in a job he can do is a better man than a normal individual. During the war, 87 per cent of the nation's industries employed handicapped workers. They reported that among the handicapped there was a much smaller job turnover, less absenteeism, fewer accidents and equal or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higher production rates. The reason for this is that the handicapped realize their limitations in the field of employment, they are anxious to hold the jobs they have secured and endeavor to do their best at all times. The experience in this past war when so often employers could not find employees for all types of employment has certainly shown the importance of exploring every means of increasing the labor market in order to make available to industry the absolute maximum of manpower. This, an effective rehabilitation service will help to accomplish.

After the survey and evaluation of a community's resources, the decision regarding the type of rehabilitation service which can be established should be made. If the needs are large, a rehabilitation center building should be considered. If it is small, the service may be administered through the hospital, the community health center or another local agency. A small start will quickly grow and will soon prove its worth to the community.

The accompanying illustration (Fig. 1, Chart No. 1), presents the functional chart of such a model rehabilitation service as prepared by the Sub-Committee on Civilian Rehabilitation Centers of the Baruch Committee on Physical Medicine. The patients are referred by the physician, the hospital, labor, industry, social and government agencies or the patient may refer himself. Upon entering the center the patient is first examined by a doctor, next by a psychologist and social worker, and, finally, by a vocational rehabilitation worker. After a careful survey and evaluation of these examinations the individual program of rehabilitation is planned. The patient then will be sent as indicated to the following: Physical therapy and occupational therapy, physical retraining, psycho-social treatment and adjustment, special educational projects such as art, typing, etc., vocational guidance and testing, or vocational retraining. Following these activities there will be a second evaluation of the patient based on his performance record in the program. It will then be decided whether he can be returned to full employment, selective employment or whether he should work at home or in a sheltered workshop.

In organization of such a model center there will be an administrator at the head of the unit. The services will then be divided into medical and vocational with a director of each. Under the medical director will be placed two branches, (1) physical medicine with a physician especially trained in charge, and, (2) psycho-social with a psychiatrist in charge. Under physical medicine will be sections for physical therapy and physical education; under the psycho-social will be psychological and social service sections. Under the vocational director will be a vocational guidance and testing branch, a curative workshop and a special education branch. In addition, there should be rehabilitation and medical consultation services, a board of governors, and an overall advisory committee with representatives of industry, labor, social agencies, civic organizations and the medical profession. With this organization the program will be well rounded and all types of handicapped individuals can be given their best opportunity to be transformed into contributing members to society as well as becoming self-supporting citizens.

Another illustration has been prepared to show what the committee believes might be a satisfactory building to house such a community rehabilitation project. These plans are presented to you as the thoughts of a small group of individuals who have been thinking and working with rehabilitation over many years, particularly during the war. They can be adapted to meet the needs of almost any community. In the beginning the center part of the building could be constructed, if the community does not need the whole building or funds are not available, and the additions made as funds become available or as the community needs increase. It will be noted that this building has two wards for domiciliary care of patients who can be more conveniently cared for here than they can at home. This is not at all necessary, but may be operated as a convenience to the patients or as a source of added revenue. It has been estimated that if such a center has 250 patients per day and each patient takes 60 days for his rehabilitation the cost per patient should be approximately $125.00.

The essayist hopes that what he has presented will give ideas and thoughts to you which can be taken to your home communities and develop into real and adequate programs of rehabilitation. Every handicapped individual in your community should have the opportunity to be physically and mentally restored to a point where "he will have no fear, and ask no favor; a person who will be able to earn his way both intellectually and materially with just as little allowance made for his particular handicap as possible." Making this a reality is a civic duty in every community. We as a nation are gradually waking up to the opportunities rehabilitation affords for the restoration of the handicapped to normal citizenship, and, undoubtedly in the years to come this third phase of medicine will receive as much attention in all medical programs as prevention, diagnosis and treatment are today.

* * *

The Medical Program of the Veterans' Administration*

MAJOR GENERAL PAUL R. HAWLEY, M.C., U.S.A.
Washington, D. C.

It is a privilege as well as one of my most important duties to explain to the medical profession of this country the medical program which the Veterans' Administration proposes. I feel an accountability to the medical profession as well as a responsibility to the veteran.

Rehabilitation is a new part of medicine; it is a part which has not been tried on a large scale in civil practice in this country. It is true that there have been in existence for twenty-five years agencies engaged in this, such as the Institute for Crippled and Disabled in New York. Occupational therapy had quite a vogue during, and immediately after the First World War. But it seems to me, having seen it at that time, that without medical guidance, occupational therapy lost its prime purpose and became largely a recreational or diversional project.

That is one point we should remember in this rehabilitation program—without medical guidance, without direction toward a certain definite end in the cure of the patient, the entire rehabilitation program may deteriorate into a recreational period following an illness or an injury.

Occupational therapy has come back; it has come back under medical guidance, and it is a very important part of rehabilitation. But on a large scale and under conditions in which the results could be measured, I think it is fair to say that rehabilitation reached its peak during the war and it has received its greatest impetus from this war.

The point has also been made and I shall emphasize it, that the requirements are competent personnel and a certain amount of equipment but also a most important requirement is a cooperative patient. Many patients must be made cooperative. They come in discouraged. We saw it time and time again in our own centers. The first few days they wanted to do nothing, they were apathetic, they were through with the war, they'd rather take the permanent disability, perhaps, than to go back and fight.

That was not true of every patient, but that was true of many of them, and the only way that you can get the cooperation of patients is by the leadership of your own personnel. The personnel must be completely sold on the program. It must be a religion with them. They must exude enthusiasm, which is absorbed by the patient.

And it was largely due to the leadership and the enthusiasm of Colonel Diveley, to the selection of his personnel, to the selection and improvement of plant—because much of the plant we had to take from the British, which required a great deal of improvement to afford a healthy, stimulating atmosphere for the patient. While physically you can rehabilitate patients in a barn loft, you can't keep them in the barn loft while you are rehabilitating them. The plant itself must inspire in the patient the desire to get well.

The results that he gave you were purely in percentage of people returned to duty. I don't have the exact figures of the reduction of time or reduction of days spent in hospital, but they were tremendous. In the early days prior to the invasion of France when we had much time, many doctors and an adequate plant, we played with rehabilitation. We didn't feel forced to return patients to the United States who would not be able to do duty for 180 days, and afterwards we had to reduce that to 120 days and afterwards, in the Battle of the Bulge, to 90 days in order to keep our own beds fluid. We had plenty of beds and plenty of people, so we played with fractured femurs to see how many we could restore to full military duty and in what length of time, and I shall never forget the consternation of our good friend Fred Rankin when he came and, with a sly grin and his tongue in his cheek, Diveley took him up and showed him fractured femurs that were climbing 12-foot walls within 150 days of the fracture and were climbing and jumping broad ditches and jumping off of places. I'm sure Dr. Rankin didn't breathe easily until he got away from that place. He was quite certain we were going to re-fracture those femurs.

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*Address delivered before the annual sessions of the Nebraska State Medical Association in Lincoln, May 9, 1946.

We never had a re-fracture of a bone in any of that training! We had minor injuries that go with all sorts of physical exercises but they were very few in number and the original injury was never hurt again.

There are certain differences between the rehabilitation of the veteran patient in general and that of the soldier or the civilian patient. It is true that in the non-service connected disability which will come into our hospitals, the program will be parallel. We shall have automobile accidents, fractures, cases of pneumonia, and other acute conditions which are not connected with the service and in which the rehabilitation will be the same as the rehabilitation of any patient. However it is surprising how many people feel that our great problem (I am talking about physical rehabilitation now) is in cases which have been rehabilitated physically to almost the maximum before they are discharged from the Army and the Navy. Since most of the cases of war injuries have been rehabilitated physically to the maximum extent before separation from the service, our task with them will be largely one of vocational rehabilitation.

As was mentioned by Dr. Shands, the greatest single difficulty in the rehabilitation of the veteran is the pension policy in this country. After the last war, the general policies regarding veterans were controlled by a relatively small minority of our population organized into groups which exerted a great deal of political and moral pressure. There were only a small number of veterans, comparatively, and the great mass of the population was not particularly interested in the problem. If we pursue that same policy after this war, I think we are bent on tremendous difficulties which will threaten the very stability of our government. We have twenty million veterans to consider now—which is a huge proportion of our population — and the problem is so great that it must be considered by every citizen of the country.

In our own program now we contemplate the following types of rehabilitation:

In our active general medical and surgical hospitals, the same type of rehabilitation that you would have in your own hospitals or in your rehabilitation centers—an extension of occupational therapy, an extension of physical therapy, a rehabilitation service controlling both occupational and physical therapy. This program in the Veterans' Administration is headed by Dr. Donald Covalt who was one of Dr. Rusk's principal assistants during the war. Dr. Rusk is one of our Consultants, and we lean very heavily upon the work, the advice and the guidance of the Baruch Committee.

We shall, in our general medical and surgical hospitals, look into the psychological reaction of patients, test them as to aptitudes. Perhaps as disabled people they are attempting to do work for which they are too physically handicapped to be entirely comfortable and productive.

In tuberculosis hospitals, particularly, the Veterans' Administration has to establish an entirely new program of rehabilitation. There has been very little of that done in the past and here comes a tuberculous patient from the foundry, the steel mill, from heavy industry. We can arrest his disease or get a healing of his lesion but are doing that man a terrific injustice if we fail to teach him a new industry which will let him live in health and comfort and still be productive.

We must test his aptitudes while he is convalescing from his tuberculosis and we must start his initial training in his new vocation while he is still a patient, making that a part of his graduated exercise. We can't complete the training, perhaps, for a highly skilled occupation while he is still a patient. We start him after he is able to leave the hospital. We must put him into a sheltered workshop for six months' work as additional training and observation as to whether or not he will stand up under the conditions of his new vocation.

In neuropsychiatric hospitals agriculture has long been used and has been the principal means of rehabilitation, but I think there again it has been undirected. It has been directed more toward raising of vegetables to feed the patients in the hospital than as a measure of rehabilitation of the patient. The patient must have an aptitude for agriculture if the training on the farm is to go toward rehabilitating him.

We must, and we are planning to put shelter workshops in psychiatric institutions. There seems to me to be no reason why a man who is mentally disabled should be denied an opportunity to earn his living any more than a man who is physically disabled, and these people can do productive work and they will do a tremendous amount of productive work—they will average more work than the so-called normal people in industry—and that is something that we have got to watch, or we shall have all organized labor on our heads.

It has been the history in our hospitals that disabled patients will produce more work per hour than men at the lathe in the shop.

On one of my first visits to Veterans' Hospitals (it was an N. P. hospital), I saw in the shop a young veteran of this war operating a power-driven sewing machine making pajamas, and the machine was running so fast it was almost smoking. As fast as one seam was sewn, the other seam was sewn and the finished product tossed over and another one grabbed.

Not having much experience in this I thought, "Here is a man about ready to leave the hospital. He is certainly interested in his work."

So I stopped to talk to him. He stopped his work, got up, looked at me wild-eyed, started in to tell me that his head was a radio receiver and he was receiving messages every minute; and he had tattoo on his arms — red and green — and these colors meant something. His talk was incoherent, wild, confused as we see in the really disturbed patient. Yet that man was doing productive work. And if he were doing productive work, there is no reason why he should not be paid for that work.

The sheltered workshops that we are establishing now with equipment from the surplus of the Army and the Navy, first are a testing ground for those people who ultimately will be able to go out into industry at large, but second, for those people so disabled for whom we shall always have to create an environment more favorable than the environment in industry, who will be able to work under favorable conditions but who cannot go into shops in industry at large.

Already certain of these vocational projects are in operation with the cooperation of industry, and the Bulova Watch School is one of the most advanced of these projects. I am told that there is an urgent need for 25,000 watchmakers in this country at this time and having to wait three to four months myself to get a watch repaired and then getting it done in an indifferent manner. I am inclined to agree that there is a great need for watch-makers in this country.

The Bulova Company has set up its own school in New York and has now set up another one in the Veterans' Hospital in Los-Angeles. It will extend these schools to any of our hospitals which we wish to designate. They are furnishing all of the equipment and all of the instructors, and after they graduate a veteran from their school. they will set him up in business in any locality in the United States which seems hopeful for success, and will extend him credit for tools and for parts for a year or so until he can establish himself.

That is a very worth-while contribution from industry. It is a program which particularly appeals to the paraplegic. Although it is an experiment, they took a one-armed veteran—which seems a little difficult, with the delicacy of manipulating a watch in its repair—and I was told that he is one of the most expert of the students they have trained, this veteran with only one arm and with a prosthetic device substituting for the other.

The International Business Machines Corporation has a program for the blind, headed up by Michael Supa, himself blind, in which they are doing a tremendous work in training the blind to be completely productive and independent. We are approaching other industries for similar programs.

We think that perhaps in the future around our sheltered workshops we must develop colonies in which the veteran with a family can live and work in our sheltered workshops and help support his family in that way, either as Federal housing projects which will be rented to the veteran or as housing built by the Veterans' Administration to house the veteran and his family;

the single men to be housed in bachelor quarters.

In Mineral Wells, Texas, there is a silk-growing project in which we are very much interested. The people of that town have offered us five hundred acres of land, free housing, and free instruction in the culture of the silkworm and the growing of the mulberry tree. It is a little difficult for us to accept this offer for the moment because it is an entirely new departure and, as you know, the Congress appropriates for specific projects, but we hope to be able to take a hundred selected neuropsychiatric cases out of our hospitals, place them there in a colony set up, and to start growing the silkworms and producing silk.

I consider one important part of the program of rehabilitation of the veteran to be the out-patient service which we can give him with the cooperation of the profession in this country. In the first place, it keeps the veteran out of hospital, and the hospital atmosphere is not conducive to rapid recovery of a patient. If, while he is still at work in industry in his own community, he can receive the necessary out-patient care, that in itself will be a great step in the prevention of his breakdown and in his rehabilitation if he has been disabled before.

But I find, as I go around the country, a great deal of confusion in the minds of the medical profession as to how far we can go in this out-patient care and treatment and I shall take just a minute to explain to you the law which governs such service.

First, the entire medical benefits of the veteran are governed by the law. The law states that veterans with service-connected disabilities are entitled to complete medical care and treatment for those service-connected disabilities as long as they live. That means, however, that a veteran with a service-connected disability is not entitled to care and treatment for a non-service connected disability if that non-service connected disability has no bearing upon his service-connected disability.

But frequently there is a direct bearing, as for example a veteran with one leg falls down because of his handicap of the loss of a leg; even with a prosthesis, he falls down and breaks the other leg or an arm. We would rule that he is entitled, as a service-connected disability, to the care and treatment of this new disability which arose out of, or was associated with, his service-connected disability.

But a veteran without a disability who starts across the street and is hit by an automobile and gets a broken leg of course is not entitled to medical care and treatment for that except under conditions which I shall outline in a moment.

The veteran with a service-connected disability also is entitled to out-patient care and treatment for that disability, and it is for this that we are entering into agreements with State medical organizations and prepayment insurance organizations. But we cannot enter into agreements for out-patient care of non-service connected disabilities because under no condition will the government pay for the out-patient care of a non-service connected disability.

Those with non-service connected disabilities, however, are entitled to hospitalization in Federal hospitals, those of the Veterans' Administration, Army, Navy and Public Health Service, provided first that there is a bed available. That is the first provision of the law. Obviously there cannot be a bed available for him if all beds are filled with service-connected disabilities. However, we have a long time to go, even with the hospitals that we have, before all of our beds will be filled with service-connected disabilities.

In tuberculosis the ratio of service-connected disability to non-service in Veterans' Administration hospitals is about 50-50; about half of our cases are service-connected and in our psychiatric hospitals it is about 60-40—40% service-connected and 60% not. But in our general surgical and medical hospitals, only 15% of the patients have service-connected disabilities and 85% do not.

So there have been great numbers of beds available for the patients with non-service connected disability.

An exception to the provision of hospitalization in hospitals has been made in the case of the woman veteran. I am sure this is a more or less temporary provision and it is for the reason that most veterans' hospitals do not have facilities for caring for women patients.

Thank you very much.

Rehabilitation of the Sick and Injured*

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To rehabilitate means to restore to the former capacity. As applied to an individual who is below par or seriously incapacitated because of disease or injury, it implies restoring that individual both physically and mentally to a normal condition or as nearly normal as possible. The orthopaedic surgeon, because he deals largely with crippling conditions which limit activity and often profoundly affect the mental processes, has long appreciated the importance of a planned program of physical and mental reconditioning to assure the patient the best result to which he is entitled. Unfortunately, in the past, the medical profession as a whole has not recognized the benefits which accrue from utilizing the convalescent period as a reconditioning opportunity for all patients who have been confined to bed or limited in their activities. Too often the patient who has experienced a serious illness or who has had a cast or splint removed is left to his own devices to find his way back as best he can to his original state of health and vigor.

The necessity of conserving manpower in World War II created a very real demand for a program which would return the sick and injured to their units at the earliest possible moment. In England in 1942, it early became apparent to those in the office of the Chief Surgeon that a tremendous waste of manpower days was being caused by prolonged convalescence following sickness and injury. A soldier fully recovered from his illness was too often allowed to lie around the hospital wards until he felt he was able to return to duty. Even after a protracted convalescence, a large majority of the cases, when they returned to their units, found that they were neither mentally nor physically fit to carry on the pace demanded of them. The unit commander had little time or sympathy for the man who could not keep up with the prescribed tempo. The army and likewise industry has no place for the part-time worker. In consequence, hundreds of military personnel were turned back through the hospital system as unfit for duty, although they had fully recovered from their acute illness or injury.

In an attempt to cut down the manpower days lost to the army, the Chief Surgeon, General Paul R. Hawley, gave us carte blanche to set up a system of supervised convalescent care in the medical service of the European Theater. The plan in brief consisted of taking the convalescent from hospital surroundings, and subjecting him to a concentrated training regime, directed toward his mind as well as his body. Such training was continued until he reached a point where he could be sent back to his unit mentally ready and physically fit for duty.

A small rehabilitation center was established in the spring of 1943, and by trial and error a system of treating convalescent military personnel was built up which cut down the manpower days lost to the army approximately fifty per cent.

The program accepted the patient as soon as he became convalescent, often while he was still wearing a cast. He was moved into a barracks or camp away from hospital atmosphere, and by carefully supervised physiotherapy, exercises, recreation, and study, he was brought back to his former mental and physical status. The problem was to take a man who had been shot down in a flaming plane or injured in battle or convalescing from an illness and recondition him for service. Since the personality problems and types of physical impairment were many and varied, the success of the program required a personnel with the 'know how' of physical reconditioning and an understanding and insight into mental reactions.

When VE day came, a program of rehabilitation had been established in each of our general and station hospitals, and in addition five rehabilitation centers for the exclusive reconditioning of military personnel were functioning. Over an eighteen-months period 70,358 patients passed through the five established centers; and in addition, many thousands of men were reconditioned in the hospital system and returned directly to duty. Now that hostilities are ended, it is possible to give some statistical data on the rehabilitation of the sick and injured personnel of our army in the European Theater, which information heretofore has been restricted.

Of the 70,358 dispositions, 57.3% were

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*Read before the Annual Assembly of the Nebraska State Medical Association in Lincoln, May 9, 1946.

returned to general assignments, and 27.2% were returned to limited duty, a total of 84.5% to duty, while 15.5% were returned to the hospital for further treatment or for boarding back to the zone of the interior.

Noteworthy was the fact that 32,465 of this number were battle casualties, of whom 50.7% were returned to full duty, and 30.8% were discharged to limited assignments, a total of 81.5% being returned to some form of duty in the European Theater. Eighteen and five-tenths per cent were sent back to the hospitals for further treatment or for boarding to the United States.

By conservative estimate, over 50% of the former manpower days lost to the army was saved, and in many cases the men returned to their former units in an even better physical condition than they were when they became casualties.

This brief summary of results in no way indicates the planning and effort put into the program of rehabilitation in the ETO. It is, however, a very persuasive testimonial to the efficacy of a well organized reconditioning program in shortening convalescence and returning the incapacitated to normal activity at a much earlier date than is possible without such a plan. Moreover, it suggests that the casualties of civilian life which annually exceed those of war might greatly benefit from the lessons learned in this war-time experience.

What are these lessons?

(1) Successful rehabilitation depends upon a thorough coordination of all remedial reconditioning measures, from the bedside through convalescence and on to the time a patient returns to his former job. In other words, he is not discharged from the doctor's care until he is able to carry on his former duties.

(2) The reduction of the days of convalescence is just as important as the reduction in the duration of hospitalization. The importance of this latter has been brought home to the profession presently through the shortage of hospital accommodations. The former is equally important from the point of view of industry and the patient's economic status.

(3) Successful rehabilitation involves the reconditioning of the man as a whole, mentally as well as physically.

(4) Rehabilitation must not be regarded as something secondary to medical and surgical care. It is an essential part of treatment itself; and it must, therefore, be prescribed by the physician or surgeon in charge of the case, who must maintain close supervision over the execution.

(5) The widely prevalent view that rehabilitation is applicable only to orthopaedic and traumatic disabilities must be dispelled. Encouraging results have already been obtained by the sensible application of these principles to nearly every branch of medicine and surgery.

What practical use in civilian life can be made of our rehabilitation experience in World War II? How can a rehabilitation program be set up in civilian hospitals which will work effectively and produce results?

Some years of experience with crippling deformities in children and disabling injuries in adults have provided convincing evidence that a reconditioning program pays big dividends by rapidly returning the individual to useful activity. The rehabilitation program set up by the army in the European Theater of War proved that even when working with large groups the same desired result can be anticipated if a well integrated plan of reconditioning is put into action. Both civilian and military experience then clearly demonstrates the desirability and feasibility of including in our management of medical and surgical casualties reconditioning during the convalescent period for the purpose of restoring the individual to a normally active life with a minimum of lost time.

Perhaps the simplest example which can be cited to illustrate what such a program will accomplish is that of an individual who has suffered a fracture of the ankle. Let us suppose that the fracture is adequately treated by reduction and immobilization for eight weeks. At the end of this time, the cast is removed and the patient, who has been getting around on crutches, is told to go ahead and use the extremity. As soon as the cast is removed, the foot and leg swell so that a shoe cannot be worn, and the patient continues to get about on crutches, favoring the swollen extremity and putting no weight upon it. This goes on for several weeks, and finally the swelling subsides sufficiently to allow a felt slipper to be put on. A little weight is borne on the leg, but crutches are still necessary. Then after several weeks more, a shoe can be worn, and ambulation with a cane is possible, but disability still persists and may continue indefinitely. In the meantime, the patient has become discouraged, and doubt as to whether the leg will ever be useful again begins to take form and often becomes a fixed belief. This is particularly true in the case of the individual who earns his living by manual labor. With such a course of unsupervised convalescent control, an injury which should have permitted return to work or activity in ten to twelve weeks runs on to six or eight months or longer. In the meantime, an unfavorable mental attitude toward complete recovery is established which requires some time to overcome if indeed it ever is. If, however, a weight bearing cast had been applied at the time of the reduction and weight bearing required after a week or two; if when the cast was removed, immediate physical therapy had been instituted to build up muscle tone and rapidly eliminate edema; if the immediate wearing of a shoe had been required after removal of the cast and daily instruction and practice in proper weight bearing and walking had been insisted upon, the picture would have been quite different. Early restoration of function would have been brought about, crutches and cane could have been discarded within a week or two, and a satisfactory mental attitude toward rapid and complete recovery would have been built up. The individual would have been saved a long and unprofitable physical convalescence; he would have been protected against anxiety over financial loss and the possibility of losing his job or fear of permanent disability. Finally, the cost of his illness would have been greatly reduced for the individual, his employer, or the insurance carrier. There can be no question as to which of these methods is best for the patient and for all concerned.

While a traumatic injury has been used as an example, the same type of reconditioning can be advantageously employed for rehabilitating the individual recovering from a protracted or prostrating acute illness. Mental conditioning and physical build-up will restore the convalescent to his former capacity to meet the physical and nervous demands his particular job makes upon him much sooner than will be possible if he is left to his own devices; for he is likely to return to work too soon, and complete recovery is delayed, or he prolongs his convalescence to a detrimental extent.

The establishment of what might be called a department for supervised convalescent care in civilian hospitals is feasible, we believe. It can be accomplished with some planning and some real effort if the hospital staff desires it. Four minimum requirements must be met:

(1) One or more members of the staff must be interested in this aspect of medical care.

(2) Suitable quarters for a physical therapy department should be available.

(3) Recreational facilities must be provided.

(4) If possible, a convalescent section or wing must be set up.

Briefly to discuss these stated requirements:

A rehabilitation set-up must be supervised by a physician who has the ability to appraise each patient and outline the proper program, estimate progress, and pass on final discharge. If there is a department of physical medicine in the institution, control of the convalescent program might well be placed in this department. Supervision can not be placed in the hands of a physical therapist, who has neither the knowledge nor the experience for such a position.

An elaborate physical therapy department is not necessary. An adequate gymnasium with a minimum amount of apparatus should be provided. One or more trained physical therapists will be required. Careful supervision of this department is necessary to insure that the patient is given a proper amount of exercise but that it is not overdone nor yet underdone.

Recreational facilities include a library, a recreation hall where organized games may be played and motion pictures may be shown. This is essential to building up of morale. An occupational therapy set-up which provides both physical exercises and mental stimulation should be included if at all possible.

Since one of the important objectives of the program is to restore the individual to normal life, elimination of the hospital atmosphere is of basic importance. For this reason, a separate section or wing of the hospital should be set aside for convalescent care. In this section a minimum of hospital care should be provided. Meals should be served in a main dining room, and no trays allowed except for good reason. The patient should be thrown upon his own resources to a large extent and weaned away from the coddling of constant nursing care. Setting aside beds for convalescents may seem like a large problem with the hospitals overcrowded and bed space at a premium. In reality, however, it is not as formidable a project as it seems if the situation is analyzed and existing physical facilities used as they are or with slight modification. After all, even in a small institution if the demand is created, facilities are usually made available. In a large hospital a wing may properly be made available for convalescent care, thus relieving the active floors of the burden of caring for convalescent patients who do not require nursing care, and so providing more active beds for the acutely ill.

Our obligation to our patient does not end with recovery from the acute phase of his illness but only with return to full duty. Supervision of the convalescent period to the end that it may be made as short as possible and recovery as complete as possible is our responsibility as physicians. The necessary guidance and reconditioning can be most effectively carried out in the hospital through a department of supervised convalescent care. Thousands of veterans and a very considerable part of the public have become aware of what can be accomplished toward reducing the length of time lost because of illness or accident by reconditioning programs. In this country, it is highly possible that in the future such supervised after care may be demanded as part of the treatment by the attending physician. It, therefore, seems the part of wisdom that our hospital staffs give some thought to this aspect of patient care.

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In This Issue

MANY of our readers will remember the very interesting symposium presented at the last session of our Association when General Hawley led a discussion of the medical program for veterans. The three papers are here presented in symposium form. They are interesting and instructive, and should be carefully read by every practitioner. The care of the veteran today is one of the major functions of medical practice. Turn to page 480

A PAPER of unusual significance was delivered before the annual sessions in Lincoln by Dr. R. L. J. Kennedy of the Mayo Foundation. Cystic fibrosis of the pancreas is not a condition that one sees daily, but it is a problem for which the physician must be constantly on the alert in a study of the chronically ill infant. It is on page.......... 493

FUNCTIONAL uterine bleeding is a condition confronting every practitioner. What to do for it, and how to interpret the underlying pathology is discussed by Dr. E. C. Hamblen of Duke University in a paper which he read before the annual sessions of our State Association in May. It is on page 497

WE present an account of clinical experiences with diphtheria by Dr. Charles Edward Thompson of the Medical Department of the University of Nebraska. Dr. Thompson saw many cases of diphtheria while serving in the Medical Corps of the armed forces, both in this country and abroad. Page.......... 502

Cystic Fibrosis of the Pancreas*

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Although the syndrome which is now known as cystic fibrosis of the pancreas was described forty years ago⁽⁷⁾, it was not until the classical presentation of Dorothy Andersen, in 1938, that awareness of the occurrence of the syndrome became general, especially among pediatricians. Her report stimulated much clinical and experimental study relative to pancreatic insufficiency in infants and children. The condition is of sufficiently common occurrence to warrant emphasis to the general medical profession.

The most striking clinical manifestations, which may be present either alone or in combination, are evidence of a chronic respiratory infection, voluminous foul-smelling stools and failure to gain weight in spite of a large intake of food. Failure to relate these symptoms to underlying disease of the pancreas has accounted in the past for such erroneous diagnoses as "malnutrition," "bronchiectasis," "atelectasis," "unresolved pneumonia," and "celiac disease" among patients who actually suffered from cystic fibrosis of the pancreas.

The disease begins at an early age. In a series of twenty-eight patients observed at the Mayo Clinic, the initial symptoms were said to have been present at or shortly after birth in nearly half of the cases. Among the remainder of the children, the onset was (with decreasing frequency) during the first to the fifth month of life. In only two patients did symptoms appear at a later age; in one, between the age of twelve and eighteen months, and in the other, between eighteen and twenty-four months of age.

The most common and prominent symptoms are those related to the respiratory tract, and of these the most constant is cough. This may start when the patient is at a very early age, and may be ushered in with the appearance of a common cold. Usually, the cough is hacking; sometimes it is paroxysmal, so as to imitate the cough of pertussis. It may be worse during the night. It tends to become more marked and later it is frequently accompanied by wheezing respiration, increase of secretion and, ultimately, dyspnea and even cyanosis and clubbing of the fingers. Results of physical examination of the thorax early in the course of the disease may be entirely negative or may reveal only a few moist or sibilant rales. As the disease progresses, the observations become more marked. The rales become more numerous and coarser, suggesting the existence of diffuse bronchiectasis. Either during the course of the disease or in the terminal stages, evidence of pneumonia may be elicited. Occasionally, the cough is brassy or croupous and is suggestive of laryngeal involvement. In cases in which the condition takes a rather slow course, the chest assumes an emphysematous configuration.

Roentgenographic examination of the lungs usually yields information which is so distinctive, in many cases, that it becomes almost pathognomonic. Early in the course of the disease the roentgenographic appearance may be normal, although in a few cases shadows indicative of atelectasis may be found. After the disease has become well established, observations indicative of diffuse pneumonitis or of diffuse bronchiectasis, together with emphysema, are common. Later, the picture may be characteristic of diffuse fibrosis, and it is not uncommon to find areas of considerable extent that resemble those caused by pneumonia.

The stools usually are increased moderately in number and are variously described as large, light in color, soft, diarrheal, oily or greasy, and as having a very foul odor. Although such stools are present in a large number of cases, and although they may be evident very early in the course of the disease, the stools may vary little from normal and, rarely, constipation may be present. In nine of twenty-eight cases the initial sign was loose, light colored, foul-smelling stools, and in five others such stools constituted one of the early signs.

For patients who had stools the condition of which had been recognized, a high-protein, low-fat diet had been employed on the assumption that the condition present was celiac disease or chronic intolerance to fat. It was found that the stools of some of those patients became formed and less fatty or greasy. Such a diet, however, had no effect on the progression of the difficulty in the respiratory tract. On analysis of the stools of these patients, that percentage of the dry weight of the stool which consisted of fat was found to range from 30 to 64. Concomitant determination of the percentage of neutral fat in the stools revealed percentages ranging from 10 to 32, indicating that all fat ingested did not pass through the intestinal tract in unchanged form.

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*Read before the meeting of the Nebraska State Medical Association, Lincoln, Nebraska, May 7, 1946.

Failure to gain weight and height, prominence of the abdomen and thin, flat buttocks have been ascribed to celiac disease. Since fatty stools also are a feature of celiac disease, the occurrence of the aforementioned signs and symptoms frequently has led to this diagnosis, even when the history and physical observations have indicated the presence of a chronic infection of the respiratory tract. Hence, it must be emphasized that failure to gain weight, prominence of the abdomen and flat buttocks also must be regarded as indicative of the presence of cystic fibrosis of the pancreas.

Failure to gain weight is rather constant among patients who have cystic fibrosis of the pancreas. However, the fact that such failure to gain weight takes place in spite of a large intake of food is remarkable. During the course of the disease, and until the later stage is reached, the caloric intake may be nearly twice that of ordinary healthy infants. The reason for this is to be found in the large amounts of nitrogen, fat and carbohydrate which are excreted in the stools. Examination of the contents of the duodenum to determine the amount of pancreatic enzymes present usually reveals a marked decrease or absence of trypsin, diastase and lipase. Such an observation indicates that there is a failure to utilize food because of interference with some of the essential digestive processes.

In addition to those patients in whom symptoms appear at, or soon after, birth, it must be recognized that there is a small group of patients in whom the characteristic pathological changes occur, and in whom atresia of one or more of the epithelium-lined tubular structures of the body has been found(6,8). Thus, one of the patients in this series had congenital atresia of the rectum. Such instances assume importance in connection with theories as to etiology.

Statements to the effect that cystic fibrosis of the pancreas occurs more commonly in the male than in the female are supported by the incidence according to sex in this series. Nineteen patients were males and nine were females.

The familial history of the patients in question is of interest and probably of importance. Although cystic fibrosis of the pancreas is not hereditary, there is a striking tendency for it to be found in siblings. In this series, seven of the patients had siblings who had died from the same condition. Evidence in support of this was obtained either from necropsy or from histories which appeared to be reliable. One patient had two siblings who had died from cystic fibrosis of the pancreas, and one patient came from a family in which five infants had been similarly affected and in which there were three healthy living siblings. One patient had a sibling who was still living, but who undoubtedly had the same condition. In the entire series there had been deaths of three other siblings from causes other than cystic fibrosis of the pancreas, and there were thirteen siblings living and well. Of these latter, there were from one to three in some of the families. If the families of seven patients, each of whom was the product of the one and only pregnancy in one family, be eliminated from consideration, it is apparent that there was a history of cystic fibrosis of the pancreas in siblings in nearly 50 per cent of cases. This knowledge is of importance in the consideration of patients whose true condition is uncertain, either because the disease has not fully developed or because some of the clinical or laboratory features are lacking or unobtainable.

Since inability to utilize fat is so marked in the presence of cystic fibrosis of the pancreas, attention has been directed to studies on the absorption of fat-soluble vitamin A. Determinations of the amount of vitamin A and of its precursor, carotene, in the blood have yielded values which are usually considerably less than normal. In this series, the values obtained frequently were low, but in some patients about whose condition the diagnosis was certain the values were within the normal range. The question thus may arise as to whether low values in the blood are due to inadequate absorption from the intestinal tract or to concomitant impaired function of the liver, which, as is well known, plays an important part in maintenance of the body supply of this vitamin.

Xerophthalmia, disturbances of the skin

and changes in the character of the epithelium of some of the organs of the body, with resultant decreased resistance of the patient to infection, have been pointed to as results of a lack of vitamin A. The most outstanding evidence for this is the change of the epithelium of the bronchi from columnar to a transitional or squamous type, which has been demonstrated in a significant number of cases.

The outlook in cystic fibrosis of the pancreas is generally bad. Of the twenty-eight patients concerned herein, eighteen died at ages varying from less than one week to seven years. Most of the deaths took place when the patients were between the ages of two months and two years. Of those who are living, none have recovered, although a few appear to be clinically improved.

Improvement in methods of handling these patients may result in longer periods of improved health and survival. At present, therapy consists of diet, administration of vitamins, the supplying of pancreatic material and drug therapy. Recent studies indicate that although the diet should consist predominantly of protein food, the condition of patients subsisting on the diet may be better if a moderate amount of fat and carbohydrates is included. The evidence suggests that some fat and carbohydrates will be absorbed and utilized if there is a reasonably adequate supply available from the gastro-intestinal tract. Protein milk, cottage cheese, bananas, bacon, lean meats, pureed vegetables, orange juice, tomato juice, soybean muffin, honey and grated apple are the foods more commonly employed to build the diet, according to the infant's age. To this list of foods may be added whole milk, cream and butter.

Apparently an adequate intake of vitamin A cannot be assured if the vitamin is administered by mouth. It is, therefore, the practice to give this material intramuscularly. It is obtainable in ampules containing 100,000 units. The contents of one of these ampules may be given once or several times a week. Water-soluble preparations of the other vitamins can be administered in the usual way.

The administration of pancreatin has been of proved value to those patients. Pancreatin is obtainable in the form of pancreatic granules, and is given in doses of from 10 to 20 grains (0.65 to 1.3 gm.), three times a day, at or near mealtime. A recently developed preparation called "panteric granules" has the advantage of being enteric-coated and, therefore, more acceptable to young patients. The dose is approximately the same as that given for pancreatic granules.

A number of patients suffering from cystic fibrosis of the pancreas have been treated by means of inhalations of penicillin. Children five or six years of age and older usually will be able to use the mask from which the vapor can be inhaled. For infants we have found useful an arrangement which consists essentially of a light tent made of wood supports and covered with cellophane, and a vaporizer which is so arranged as to deliver the vapor into the tent. Since the underlying disease consists of irreversible changes in the pancreas, it is too much to expect that any form of treatment will cure the condition. However, in a few cases persistent use of the vaporizer has resulted in clinical improvement. The roentgenographic appearance of the thorax, however, does not indicate parallel improvement in the pulmonary lesions. The mixture of vapor which we have used in the vaporizer is one in which 1 cm. contains 1,800 units of penicillin.

The etiology of cystic fibrosis of the pancreas has not been determined. According to one theory, vitamin A deficiency is present and leads to the obstruction of the pancreatic ducts by collections of desquamated epithelial cells. The theory that the underlying basis is infectious is supported by the almost constant co-existence of suppurative pulmonary disease and by evidence, in some cases, of inflammatory change in the pancreas. Obstruction of the pancreatic ducts(3) seems to be the more likely explanation of the changes that take place in the pancreas. It is by no means possible, however, to demonstrate obstruction in the majority or even in a large number of cases. Blackfan and Wolbach(4) in 1933, and more recently, Farber, have postulated that the disease is the result of an abnormal pancreatic secretion which causes obstruction in the acini and small ducts. In some patients Farber was able to demonstrate inspissated secretions in the glands of the trachea, bronchi, esophagus, duodenum, gallbladder and intestinal tract. He concluded that the disease is caused by a generalized disturbance that involves many glandular structures, but that is more evident in its effect on the pancreas.

The pathological changes in the pancreas consist of fibrosis and dilatation of the acini and ducts, the degree of which apparently is dependent upon the stage of development attained by the disease. In addition to dilatation of the acini and ducts, atrophy of the acinar parenchyma occurs, with variable increase in the interacinar and interlobular connective tissue. In some cases, a few lymphocytes have been found in the interstitial tissue. The islands of Langerhans are essentially normal, which is consistent with the absence of symptoms of diabetes mellitus.

Changes in the lungs consist of suppurative bronchitis and bronchiectasis, patches of bronchopneumonia and abscesses. Hyperexpansion of portions of the lung is a frequent observation. Squamatization of the bronchial epithelium, already referred to, can be demonstrated in a considerable percentage of cases. Fatty change of the liver, distension of bronchial glands and of glands of the duodenum and deposits of calcium salts in the renal tubules, were reported by Baggenstoss and myself in some of the cases in this series.

SUMMARY

The chief features of a series of twenty-eight cases of cystic fibrosis of the pancreas have been described. Evidence of chronic infection of the respiratory tract, steatorrhea and failure to gain weight are the most constant symptoms, and their presence either alone or in combination in an infant or young child should arouse the suspicion of cystic fibrosis of the pancreas. The treatment which has been found most effective has been outlined.

REFERENCES

1. Andersen, Dorothy H.: Cystic Fibrosis of the Pancreas and Its Relation to Celiac Disease; A Clinical and Pathologic Study. Am. J. Dis. Child., 56:344-396, 1938.

2. Baggenstoss, A. H. and Kennedy, R. L. J.: Fibrocystic Disease of the Pancreas; Study of Fourteen Cases. Am. J. Clin. Path., 15:64-70, 1945.

3. Blackfan, K. D. and May, C. D.: Inspissation of Secretion, Dilatation of the Ducts and Acini, Atrophy and Fibrosis of the Pancreas in Infants; A Clinical Note. J. Pediat., 13:627-634, 1938.

4. Blackfan, K. D. and Wolbach, S. B.: Vitamin A Deficiency in Infants; A Clinical and Pathological Study. J. Pediat., 3:679-706, 1933.

5. Farber, Sidney: Medical Progress; Pancreatic Insufficiency and the Celiac Syndrome. New England J. Med., 229:653-657; 682-687, 1943.

6. Kornblith, B. A. and Otani, Sadao: Meconium Ileus with Congenital Stenosis of the Main Pancreatic Duct. Am. J. Path., 5:249-261, 1929.

7. Landsteiner, K.: Darmverschluss durch eingedicktes Meconium. Pankreatitis. Zentralbl. f. allg. Path. u. path. Anat., 16:903-907, 1905.

8. Oppenheimer, Ella H.: Congenital Atresia of the Pancreatic Duct with Cystic Fibrosis of the Pancreas. Arch. Path., 29:790-795, 1940.

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URGES REHABILITATION FOR CONVALESCING PATIENTS

The convalescent period of sick or injured patients should be utilized for rehabilitation, according to Rex L. Diveley, M.D., of Kansas City, Mo.

Writing in the current issue of Occupational Medicine, published by the American Medical Association, Dr. Diveley feels that "too often the patient who has experienced a serious illness or who has had a cast or splint removed is left to his own devices to find his way back as best he can to his original state of health and vigor."

This problem was especially serious during the war, the author states, when "a soldier fully recovered from his illness was too often allowed to lie around the hospital wards until he felt that he was able to return to duty. Even after a protracted convalescence a large majority of the patients, when they returned to their units, found that they were neither mentally nor physically fit to carry on at the pace demanded of them . . . In consequence, hundreds of military personnel were turned back through the hospital system as unfit for duty, although they had fully recovered from their acute illness or injury."

Dr. Diveley and his colleagues were commissioned to set up a system of supervised convalescent care in the European Theater of Operations in an attempt to deal with this problem.

"A small rehabilitation center was established in the spring of 1943," the author states, "and by trial and error a system of treating convalescent military personnel was built up which cut down the man power days lost to the army approximately 50 per cent . . .

"When VE day came, a program of rehabilitation had been established in each of the general and station hospitals, and in addition five rehabilitation centers exclusively for the reconditioning of military personnel were functioning. Over an 18 month period 70,358 patients passed through the five established centers, and, in addition, many thousands of men were reconditioned in the hospital system and returned directly to duty . . .

"Of the 70,358 patients dealt with, 57.3 per cent were returned to general assignments and 27.2 per cent were returned to limited duty, a total of 84.5 per cent to duty, while 15.5 per cent were returned to the hospital for further treatment or for transportation back to the zone of the interior."

Endocrinology and Treatment of Functional Uterine Hemorrhage*

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Our use of the term functional uterine hemorrhage or functional excesses of uterine bleeding warrants explanation. By functional it is meant that a disturbance in the normal physiologic mechanisms of bleeding is responsible for excessive flowing rather than organic disease, local pathology or gestational processes. We use excesses of uterine bleeding to describe episodes of flowing which, by occurring too frequently, lasting too long, or by being associated with profuse bleeding, constitute a hazard to well-being(2).

NORMAL MECHANISMS OF BLEEDING

Functional disturbances of bleeding can be understood only when the normal mechanisms of bleeding are known. The bleeding phase of the menstrual cycle results from endometrial regression. The menstrual cycle is characterized by phases of growth and phases of regression. The growth hormone of the endometrium is estrogen. When the endometrium receives adequate growth stimulation by estrogen, the endometrium grows and proliferates. When the estrogen levels become inadequate to stimulate further growth of the endometrium, the endometrium regresses. If this endometrial regression be rapid, as it characteristically is in the immediate premenstruum, there are buckling and fragmentation of the spiral arterioles of the endometrium. This vascular crisis results in uterine bleeding. Normally bleeding follows a reduction in blood estrogen levels of approximately fifty per cent from peak levels of the cycle(3). Accordingly, estrogen levels normally do not fall to zero prior to, or during menstruation. This preservation of a fair estrogen level during bleeding has been regarded as a 'buffer' mechanism which prevents too extensive endometrial destruction.

The normal mechanism for checking menstruation, that is physiologic hemostasis, is a rapid upswing in estrogen levels which occurs during the latter half of menstruation. This hemostatic peaking of estrogen levels apparently is related to maturation of clusters of follicles in the ovaries. From these clusters, a 'favored' follicle emerges and goes on to full development, ovulation and corpus luteum formation. The hemostatic upswing in estrogen levels induces a new phase of endometrial growth which, by repairing the endometrial damage and by favoring the growth of new endometrial vessels, stops the uterine bleeding.

It is obvious from this discussion that progestin is not regarded as an endometrial growth hormone. Progestin, however, has important physiologic roles. By acting upon an endometrium which is being stimulated actively by estrogen, it produces characteristic progestational differentiation of this endometrium. It has important actions on estrogen metabolism and on the gonadotropic function of the pituitary. It favors the conversion of estradiol into estrone and estriol and, thereby, hastens the elimination of these estrogens, paving the way, perhaps, for the normal premenstrual fall in estrogen levels. Progestin inhibits the follicle-stimulating gonadotropic action of the pituitary—curtailing, thereby, further elaboration of estrogens—and stops the release of luteinizing gonadotropin from the pituitary .

The normal biphasic gonadotropic activity of the pituitary is dependent upon the biphasic, sequential secretion of the two ovarian hormones, estrogen and progestin. When estrogen levels are low, the follicle-stimulating gonadotropic action of the pituitary, by causing proliferation of granulosa cells, increases the secretion of estrogen. When estrogen levels reach normal peaks, these levels provoke a release of luteinizing gonadotropin from the pituitary. Normally the release of luteinizing gonadotropin coincides with full follicle maturation. Luteinizing gonadotropin is capable of inducing ovulation of a fully matured follicle. Progestin which begins to be secreted, in conjunction with a continuation of estrogen secretion, after ovulation, inhibits further elaboration of follicle-stimulating gonadotropin and stops the release of luteinizing gonadotropin. Ovulation which initiates the progestational phase of the cycle, limits the length of the cycle since, if no pregnancy occurs, bleeding follows within fourteen to fifteen days. Accordingly, progestin provides an effective, stabilizing element in menstrual chronology. It is axiomatic that normal ovulatory cycles are more regular than anovulatory cycles in which the waxing and waning of follicle-estrogen levels are the only mechanism of controlling cycle length and the duration of bleeding.

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*Read before the Seventy-eighth Annual Convention of the Nebraska State Medical Association, Lincoln, May 6 to 9, 1946.

HORMONOLOGY OF FUNCTIONAL EXCESSES

The preceding review of the delicately coordinated mechanisms of the normal menstrual cycle describes a system in which functional disturbances may arise at every stage. We are more inclined to wonder why normal cycles occur rather than why functional disturbances arise.

Many breaks, accordingly, may occur in this normal mechanism which is dependent upon a fine calibration of endometrial, ovarian and pituitary function. Whatever the break is, there results a disturbance in both ovarian and pituitary functions. A failure of estrogen levels to increase during the latter part of the bleeding phase—that is failure of the physiologic hemostatic mechanism—may result in prolongation of what would have been otherwise a normal period of bleeding. An extremely rapid and marked fall of estrogens—a fall which approaches zero levels—may induce an episode of prolonged and excessive flowing associated with marked endometrial regression. Teetering of estrogen levels, wherein values are insufficient to initiate or to maintain endometrial growth, may cause prolonged flowing. Any of these breaks of function may be followed by a prompt recovery of ovarian function before any appreciable impact on pituitary function results. If this recovery of function is not prompt, a series of characteristic changes ensues. On the other hand, the genesis of recurrent functional excesses of bleeding may be failure of the ovaries and pituitary to recover their normal reciprocities following an interpolated anovulatory cycle, which may occur from time to time in normal healthy women. It seems likely that most of these breaks arise from intrinsic ovarian aberrations.

Unless there be a prompt recovery of ovarian function following one of these isolated breaks of function, the pituitary gonadotropic activity is altered. There is a compensatory increase in the follicle-stimulating activity of the pituitary which is designed to bring the ovary into normal function. The result of this action is an increased outpouring of ovarian estrogens. In many instances, there is a breakdown in ovarian sensitivity with the result that further increases in pituitary stimulation of the ovaries occur. Under this increased stimulation clusters of follicles mature and secrete estrogen. In these overstimulated ovaries, there is failure of the mechanism which selects a 'favored' follicle for eventual ovulation and corpus luteum formation. Accordingly, the ovaries become uniphasic in function, secreting only estrogen and failing to ovulate and to secrete progestin. The hyperfunctioning pituitary likewise becomes uniphasic as regards its functional effectiveness and acts solely as a follicle-stimulator. The elevated estrogen levels cause a continuous release of luteinizing gonadotropin from the pituitary with the result that it cannot be discharged in amounts sufficient to induce ovulation(4). Since ovulation does not occur, progestin is not secreted and the mechanism for curbing follicle-stimulation and the release of luteinizing gonadotropin is absent. The nonsecretion of progestin is followed by alterations in estrogen metabolism: There is impaired conversion of estradiol into estrone and estriol; there is a decrease in the elimination of estrogens and an increase in their destruction(4). Accordingly, anovulatory cycles of varying lengths, and terminating commonly in excesses of bleeding, result from fluctuations in estrogen levels and the interplay of these levels on the follicle-stimulating action of the pituitary. Long growth cycles, during which the endometrium is stimulated by increased levels of estrogen, may result in endometrial hyperplasia. Prolonged and excessive hemorrhage from these hyperplastic endometriums may occur when there are critical falls in estrogen levels and during the interim which is required for the estrogen levels to be built up sufficiently high to reinstitute endometrial growth and, thereby, to stop the uterine hemorrhage.

From this discussion it is evident that practically all recurrent functional excesses of uterine bleeding occur from interval or estrogen-prepared endometriums. The endometrium may be poorly proliferated (atrophic or hypoestrogenic), normally proliferated, or excessively proliferated (hyperplastic or hyperestrogenic). Poorly or irregularly differentiated progestational endometriums may give rise also to prolonged and excessive flowing, which may be associated with an irregular shedding of the endometrium. When excessive flowing occurs from a full-blown, normally differentiated, progestational endometrium, the explanation is usually upon an organic basis rather than a functional one.

DIAGNOSIS

Functional excesses of uterine bleeding usually run a limited course. The increased incidence of these disturbances during transitory epochs of life—during adolescence and the premenopausal epoch—emphasizes this fact. A rational clinical approach seeks to forestall depleting hemorrhages, to restore cyclic and normal bleeding, and to favor the institution or resumption of normal and spontaneous reciprocities of the endometrium, ovaries and pituitary.

Diagnosis should assure the fact that the etiology is one of disturbed function by the exclusion of likely organic causes. This is relatively easy. Excessive flowing of the adolescent girl and of the young unmarried woman almost uniformly is of functional origin. Excessive flowing of the married woman during the reproductive phase may be of functional origin but hemorrhage from other causes is more common, including complications of pregnancy, infections and benign tumors. Functional excesses of flowing in the premenopausal woman are common but malignant growths of the cervix and the body of the uterus must be differentiated. A return of flowing after the menopause is due to malignancy in approximately fifty per cent of instances. Overtreatment of so-called climacteric symptoms with estrogens may cause postmenopausal bleeding.

A careful general examination and a thorough gynecologic survey should be done on patients with excesses of flowing. Basal metabolic determinations should be made. Special hormonal studies are not necessary. A diagnostic curettage is not necessary if the patient is an adolescent girl, a young unmarried woman or a young married woman. Knowledge of the functional status of the endometrium is of little practical value in the choice of treatment; the treatment is the same regardless of whether or not the endometrium is hyperestrogenic, normal estrogenic, hypoestrogenic, or a poorly differentiated progestational one. When excessive flowing occurs in a woman thirty-five years of age or older, however, a diagnostic curettage should be done to rule out possible malignancy. If the cervix is diseased, it should be biopsied.

Endometrial biopsies are valuable to gauge the results of treatment. They are done best at the conclusion of treatment or at the onset of flowing which follows treatment.

TREATMENT

Estrogens and progestin permit simple and satisfactory treatment and render useless and unnecessary repeated curettages, radium and roentgen ray therapy, and hysterectomy. Treatment with estrogens and progestin puts the hyperstimulated ovaries at rest, restores normal pituitary and endometrial functions, initiates normal steroid metabolism, regulates the bleeding cycle and the amount of bleeding, and, eventually, favors a return of normal ovarian function which is compatible in the young woman with fertility. The estrogen and progestin therapy is administered orally. Our therapeutic regime(1,2) is summarized.

HEMOSTASIS

Most patients are seen during an episode of prolonged or excessive flowing. The immediate problem, accordingly, is hemostasis or control of the immediate hemorrhage.

Hemostasis may be secured in two ways. The simpler of these is the oral administration of estrogen. This raises blood estrogen levels and restores, thereby, endometrial growth which produces a cessation of bleeding. Adequate estrogen therapy usually provides hemostasis within two to five days. When the hemorrhage is unusually brisk and there is severe anemia of the patient, a more rapid hemostasis may be necessary. This may be secured by curettage which produces hemostasis by removal of the bleeding site.

Our choice of an estrogen for hemostasis is estrone in the form of orally active conjugated estrogens which contain for the most part estrone sulfate. Estrone is favored for these reasons: 1). It participates in intrinsic steroid metabolism. 2). It facilitates the breakdown of estradiol to estriol and, accordingly, does not augment estradiol levels which already are relatively high. 3). Unlike diethylstilbestrol, estrone has no direct action on the pituitary which causes a release of luteinizing gonadotropin(4). 4). Conjugated estrogens are well tolerated by the patient and lack the toxic effects of diethylstilbestrol.

The commercial preparation of conjugated estrogens which we employ* is available in tablets of 1.25 milligrams. We have found that the hemostatic effect of 1.25 milligrams of conjugated estrogens is equivalent to that of 1 milligram of diethylstilbestrol. Our usual hemostatic dosage is two tablets of conjugated estrogens three times a day, that is, 7.5 milligrams. If bleeding has not decreased definitely by the third day of treatment, dosage levels are increased by fifty per cent.

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* Conjugated estrogens, supplied as premarin by Ayerst, McKenna and Harrison, Ltd., Rouses Point, N. Y.

CYCLIC ESTROGEN AND PROGESTIN THERAPY

Only temporary hemostasis results from estrogen therapy or from curettage. If estrogen treatment is halted when bleeding ceases, bleeding usually returns within two to five days. A continuation of estrogen therapy after hemostasis, therefore, is necessary to forestall this return of bleeding. The amount of estrogen which was found to be necessary as a daily dose to secure hemostasis is continued and becomes a part of the cyclic estrogen-progestin treatment formula. Accordingly, the first series of cyclic estrogen-progestin therapy begins when bleeding ceases or immediately following curettage.

Our basic formula for cyclic estrogen-progestin therapy is summarized: Conjugated estrogens are given orally, 1.25 milligrams three times daily, for twenty days. During the last ten days of this treatment, 10 milligrams of oral progestin** are given orally three times a day. If bleeding recurs before the twenty days of treatment have been concluded, therapy is discontinued. Therapy is resumed on the fourth or fifth day of bleeding, thereby initiating the second series of treatment which is given similarly to the first series.

The amounts of estrogen and oral progestin employed during the first series of treatment, as we have observed, depend upon the daily dosage of estrogen which was required for hemostasis. We maintain, however, the ratio of 1.25 milligrams of conjugated estrogens to 10 milligrams of oral progestin. If the hemostatic daily dosage of conjugated estrogens was 7.5 milligrams, this daily dosage would be continued for twenty days to constitute the first series of cyclic estrogen-progestin therapy and, accordingly, the daily dosage of oral progestin for this first series of treatment would be 60 milligrams. Following this increased dosage schedule during the first series of treatment, the second series of treatment would employ dosages outlined in our basic formula, that is conjugated estrogens 3.75 milligrams daily and oral progestin 30 milligrams daily.

Usually three or four series of estrogen-progestin therapy are sufficient to yield a salvage of normal ovarian function in most patients. Cyclicity of bleeding of normal amount and duration is secured promptly and almost uniformly. We usually do an endometrial biopsy study following the third series of treatments. If there is a well differentiated progestational endometrium, we believe that treatment may be discontinued with reasonable assurance that not only cyclic and normal bleeding will recur subsequently but that an excellent likelihood exists for a return of normal fertile ovarian cycles, save in the climacteric woman. Endometrial biopsy study may provide objective data on ultimate salvage; if a well differentiated progestational endometrium is encountered at the onset of bleeding several months following discontinuation of treatment, salvage of function is proved.

The specific modus operandi of this treatment is believed to be the following: The ovaries are put at rest during treatment, thereby allowing the overstimulated granulosa and thecal elements to regress. The endometrium is brought under essentially normal biphasic cycles of estrogen and progestin stimulation which restores normal phases of endometrial growth and regression. Normal pituitary function is restored by subjecting the overactive pituitary to normal conditioning mechanisms which throttle follicle-stimulation at the appropriate stage and which permit release of luteinizing gonadotropin in effective amounts at the proper time of the cycle. Steroid metabolism is normalized. When the treatment is discontinued the rested ovaries reestablish their normal reciprocities with the now normally functioning pituitary and endometrium.

OTHER FORMS OF THERAPY

Chorionic gonadotropin or equine gonadotropin has proven of no value in our experience in the treatment of functional excesses of flowing. When these excesses of bleeding are one of the symptoms of hypothyroidism, estrogen-progestin treatment may be desirable rather than waiting for the slower action of desiccated thyroid gland; of course, desiccated thyroid gland is given in conjunc-

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** Oral progestin, supplied as pranone by Schering Corp., Bloomfield, N. J., or as lutocylol by Ciba Pharmaceutical Products, Inc., Summit, N. J.

tion with estrogen-progestin therapy. It is our opinion that androgen therapy has no rationale in the treatment of this condition. It is true that testosterone propionate in 25 milligrams dosages will stop bleeding, but no more rapidly than estrogen therapy and with a cost to the patient which is increased at least tenfold. Androgen therapy is effective by producing atrophy of the endometrium and its vascular bed. There is no specific effect upon the disturbed function of the ovaries and pituitary which would favor normalization. At best, androgen therapy is an expensive, unphysiologic, potentially dangerous, empiric method for securing hemostasis. Roentgen and radium therapy is unnecessary even in the treatment of functional excesses of flowing of the premenopausal woman. Irradiational hemostasis in the premenopausal woman may mask an early malignancy, not discovered by an initial curettage, and, thereby, may contribute to a serious delay in its recognition and in its proper treatment. Estrogen-progestin therapy, on the other hand, does not impair the ability of the endometrium to serve as an indicator of local disease. Carcinogenesis need not be feared when estrogen and progestin are employed as we have described.

SUMMARY

Functional excesses of uterine bleeding have been defined as resulting from disturbances in the normal bleeding mechanism. Our concepts of the elements which regulate the menstrual cycle and control menstruation have been reviewed. The hormonology of functional excesses of bleeding has been related to variations in normal mechanisms of the menstrual cycle. Cyclic estrogen-progestin therapy has been applied to the correction of the functional disturbances which result in excessive flowing. Treatment formulas are described which restore cyclic bleeding of normal amount and duration, which correct the endocrine disturbance characteristic of functional excesses of flowing, and which restore normal ovulatory ovarian cycles.

REFERENCES

1. Hamblen, E. C.: The Endocrine Therapy of Functional Ovarian Failure. Am. J. Obst. & Gynec. 40:615. 1940.

2. Hamblen, E. C.: Endocrinology of Woman, Second Printing. Charles C. Thomas, Springfield, Ill., 1946.

3. Markee, J. E., and B. Berg: Cyclic Fluctuations in Blood Estrogen as a Possible Cause of Menstruation. Stanford Med. Bull. 2:55. 1944.

4. Smith, O. W., and G. V. S. Smith: Functional Flowing. J. Clin. Endocrinology 5:319. 1945.

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CONGENITAL SYPHILIS RESPONDS WELL TO PENICILLIN

In a study of 61 children, two Atlanta physicians have found that penicillin is effective in the treatment of congenital syphilis.

Congenital syphilis — a term usually associated with children who are born with the disease — is transmitted to an embryo while it is still in the womb. The infected mother's blood carries the corkscrew-like spirochetes to the infant's body. Many or all of the embryonic organs are affected.

Drs. Joseph Yampolsky and Albert Heyman, from the Departments of Pediatrics and Medicine of Grady Memorial Hospital and Emory University School of Medicine in Atlanta, used penicillin to treat the 61 syphilitic children, according to the October 19 issue of The Journal of the American Medical Association.

Thirty-two of the 61 children had simple infantile congenital syphilis. Twenty-three of the 32 responded satisfactorily under the penicillin treatment. "All 23 are clinically well, have normal spinal fluids and exhibit no clinical evidence of the disease," the authors say.

While three of the patients died, the authors believe that the fatalities were in no way related to the treatment. Two of the deaths "apparently resulted from an overwhelming syphilitic infection in premature and malnourished infants, while the third fatality remains unexplained."

In discussing the remaining 29 patients, the authors say that seven were suffering from acquired primary and secondary syphilis, while the others were treated for late forms of congenital syphilis.

In the seven cases of acquired syphilis, the doctors say the patients were treated with doses of penicillin comparable to those used in adults. "The syphilitic lesions healed promptly in every case and the spirochetes disappeared rapidly," The Journal article says, adding: "All of these children have been followed for at least six months.

"The results obtained with penicillin in the treatment of syphilis in children seem to depend on the nature and duration of the disease. Although penicillin appears to be effective in the treatment of infantile congenital syphilis and in early neurosyphilis, little or no response can be expected in the treatment of the late manifestations of this disease."

Drs. Yampolsky and Heyman say that while the optimum dosage of penicillin cannot be determined in such a small series of cases, "we believe that a total dose of penicillin of 100,000 units per kilogram of body weight is effective in the treatment of the majority of these cases."

Clinical Experiences with Diphtheria*

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In certain aspects diphtheria may be considered in these United States as a malady of little frequency, although there has been an increasing incidence in the last few years. The recent experiences of men in the Armed Forces has reacquainted many doctors with the treachery of this disease and the thorough, constant vigilance necessary to keep this infection under control. It has also reawakened physicians to the urgency of time in treatment of a bacterial infection.

Personal experience with this disease in the recent war was divided into two phases. One was an experience in Europe with the epidemic in malnourished prisoners and another in a mild outbreak in the states with American soldiers most of whom had returned from the Pacific area. In both instances the experience demonstrated the soundness of the older principles that have been laid down in prevention and treatment of this disease. The fact that toxin can be neutralized rapidly by antitoxin in the first 72 hours is still the cardinal principle of treatment. The fixing of toxin occurs quantitively on nearly an hourly basis. Penicillin has added a new agent to combat the active infection. It has no effect on toxin, but on the production of toxin by the organism and its effectiveness lies only in this phenomenon. Toxin therefore must be neutralized as quickly as possible.

Diphtheria as seen in Europe in the winter of 1944 and 1945 occurred in its initial infection as laryngeal, pharyngeal and nasal forms. This was first seen in German prisoners of war but thought to have started in the civilian population in November, 1944, in which it reached epidemic proportion by December of 1944. It continued in prisoners of war in the Brittany area from January until June, 1945, the peak occurring in late April with subsequent slackening until June. This disease occurred sporadically in American troops in the same area simultaneously. Incidence was much higher in the German than American troops. In the Rennes area over one hundred prisoners of war had severe diphtheria while eight American soldiers had the disease. There were many more American troops in the area than prisoners. It might be added that living conditions and nutritional factors were in our favor. The Nazi Army and civilian population had no generalized immunization to diphtheria. It was not a routine for U. S. troops. However, we may well thank the diligence of pediatricians in the last 25 years for the practice of Schick testing and immunization of children. While immunization was not done in the U. S. Army, many soldiers had been protected during their childhood years.

Analysis of one hundred cases was compared with other hospitals in the Brittany area and approximately the same experience was had by all. The mortality rate was low in American hands. There were three in the acute phase. Tracheotomies done were six, a rather low incidence considering the degree of swelling in the pharyngeal types and the incidence of laryngeal infections. Patients hospitalized were the very ill ones, as milder and questionable cases were treated in the P.O.W. compounds as out patients.

Treatment in the early phase of the epidemic was not as successful as in the latter part. At first 60,000 units of antitoxin was the maximum dose given. It was soon noted that if the patient had been ill over 24 hours a much more prompt response occurred if larger doses were given. Therefore 40,000 units were given initially followed by one or two more injections at four-hour intervals depending on the clinical response to 40,000 units. No deaths occurred following this routine. Penicillin was not used in treatment as these patients were all toxic.

During this epidemic a study was made of the EKG findings in the acute cases of this disease. Graphs were taken during acute and recovery phase. A total of 39 patients were studied. The characteristic findings were originally reported by Eggleston(1). Our findings were in strict accordance with his finding. T wave changes: 28% in Eggleston's group, 30% in this study. These occurred within the first three weeks of the disease and were largely confined to Leads 1, 2 and CF 4. These showed inversion of T and ST elevation in one or all of the leads. These findings were transient and T wave changes were reversed to normal again in three to four weeks in all cases studied. Conduction disturbances were seen occurring in the acute phase and in only three cases of the 39 studied. Two cleared PR prolongations promptly. Heart block occurred as a late complication in a case that had had no treatment with subsequent development of cardiac failure and death. No cardiac complications were seen in eight American cases.

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*Read before the Omaha Douglas County Medical Society, March 12, 1946.

In America at Camp Carson, Colorado, during the winter of 1945 and 1946 a mild epidemic was encountered. This hospital was a dermatological center of troops returned from the Pacific Theatre. Total cases that were bacteriologically positive were as follows: Pharyngeal 6, skin 11, wound 7.

The cases of pharyngeal diphtheria ran a rather characteristic classical course. There were no complications in this group. Of the skin cases of longer standing two cases developed peripheral nerve lesions. One was a quadriplegia. The EKG findings were not studied in this group.

The interesting part of this experience was the rapid disappearance of the disease when thorough and rigid enforcement of the principles of prevention were adhered to. All contacts and suspects were Schick tested and cultured and the Army routine for control of an epidemic was enforced with an abrupt subsidence of the number of cases. Strict isolation was enforced in all patients with positive cultures.

SUMMARY

Diphtheria may be seen more frequently again in this country.

Strict adherence to public health principles is necessary to stop its spread.

Membraneous throats should always be cultured.

Adequate antitoxin promptly given is essential to prevent complications.

BIBLIOGRAPHY

1. B. A. Burkhardt, C. Eggleston, and L. W. Smith: Electrocardiographic Changes and Peripheral Nerve Palsies in Toxic Diphtheria. Am. J. M. Sc., 195:309, 1938.

* * *

EARLY VITAMIN DEFICIENCY STILL POSES PROBLEM TO MEDICAL SCIENCE

Although health education and commercial advertising have made the American public diet and vitamin conscious, medical science is still faced with the problem of detecting and treating early vitamin deficiency states, according to David Cayer, M.D., of Winston-Salem, N. C.

Writing in the November 9 issue of The Journal of the American Medical Association, Dr. Cayer, who is from the Department of Internal Medicine, Bowman Gray School of Medicine of Wake Forest College, says that it is very difficult to recognize early vitamin deficiency states when physical signs are absent. These include night blindness, spongy bleeding gums, painful joints and sore tongue and mouth.

Symptoms alone are not an accurate guide for diagnosis. As an example, the author cites the similarity of the symptoms of neurasthenia or nervous exhaustion and early vitamin deficiency, both of which manifest fatigue, insomnia, nervousness, headache, depression, muscle weakness, backache and lassitude.

In conclusion, the author says: "Primary deficiency states can be avoided by the proper selection of foods in the daily diet. Low economic status or reduction in the total food intake to provide for shipment abroad need not reduce the qualitative value of the diet. An adequate diet is still obtainable in this country, even for families of low income, and in spite of reduction in the total intake to provide for shipment of food abroad."

Four doctors report in the same issue of The Journal the results of severe deficiency disease seen mostly in white and half-breed Costa Rican children who subsisted on a diet consisting chiefly of bananas and molasses.

The doctors—Antonio Pena Chavarria, C. Saenz-Herrera and E. Cordero-Carvajal from the Department of Pediatrics of the San Juan de Dios Hospital, San Jose, and Leon Goldman from the Department of Dermatology and Syphiology of the College of Medicine of the University of Cincinnati — noted changes in the children's hair from slight graying to intense whiteness. The hair "becomes loosened and is easily pulled out of the scalp," they say.

This condition, the authors believe, is caused by a deficiency of one of the less well known members of the vitamin B complex group. The children can be treated successfully if they survive the severe vitamin deficiency state. Improvement can be produced by a general, adequate diet or with a mixture of vitamin B complex.

The addition of biotin, one of the most potent known members of the vitamin B complex, "is thought, but not proved," to accelerate the return of both the pigmentation and growth of the hair, according to the authors.

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Vol. 31 December No. 12

THE PLATFORM OF THE AMERICAN MEDICAL ASSOCIATION

The American Medical Association advocates:

1. The establishment of an agency of federal government under which shall be coordinated and administered all medical and health functions of the federal government exclusive of those of the Army and Navy.
2. The allotment of such funds as the Congress may make available to any state in actual need for the prevention of disease, the promotion of health and the care of the sick on proof of such need.
3. The principle that the care of the public health and the provision of medical service to the sick is primarily a local responsibility.
4. The development of a mechanism for meeting the needs of expansion of preventive medical services with local determination of needs and local control of administration.
5. The extension of medical care for the indigent and the medically indigent with local determination of needs and local control of administration.
6. In the extension of medical services to all the people, the utmost utilization of qualified medical and hospital facilities already established.
7. The continued development of the private practice of medicine, subject to such changes as may be necessary to maintain the quality of medical services and to increase their availability.
8. Expansion of public health and medical services consistent with the American system of democracy.

ANNOUNCEMENTS

If you wish to read a paper at the Annual Assembly of the Nebraska State Medical Association May 5, 6, 7, and 8, 1947, send your name and title to Dr. R. B. Adams, 416 Federal Securities Building, Lincoln 8, Nebraska. No title will be accepted after December 15, 1946.

DUES BECOME DUE JANUARY 1, 1947!
Pay your local secretary.

AMERICAN COLLEGE OF SURGEONS PLANS CLINICAL CONGRESS IN CLEVELAND, DECEMBER 16-20

The five-day Clinical Congress of the American College of Surgeons will open in Cleveland on Monday morning, December 16 at 9:30 o'clock. This will be the first annual meeting of the College since 1941. Headquarters will be in the Cleveland Public Auditorium, and the Statler and Cleveland hotels, with most of the sessions, except the clinics at the hospitals, being held in the auditorium. The program will include operative and non-operative clinics, demonstrations, symposia, panel discussions, forums, medical motion pictures, exhibits, and the Twenty-fifth Annual Hospital Standardization Conference which will convene during the first four days.

AMERICAN BOARD OF OBSTETRICS AND GYNECOLOGY, INC.

The next written examination (Part I) for all candidates will be held in various cities of the United States and Canada on Friday, February 7, 1947, at 2:00 p.m. Candidates who successfully complete the Part I examination proceed automatically to the Part II examination to be held in Pittsburgh, Pa., June 1-7, 1947. All applications must be in the office of the Secretary by November 1, 1946. All candidates, especially those in military service, are requested to keep the Secretary's office closely informed of changes in address.

Several changes in Board regulations and requirements were put into effect at the last annual meeting of the Board held in Chicago, Illinois, from May 5 to May 11, 1946. Among these is the requirement that case records must now be forwarded to the Secretary's office from thirty to sixty days after the candidate has received notice of his eligibility for admission to the examinations for certification. Candidates are again notified that they must expect to be examined in both branches of the specialty of obstetrics-gynecology. The

Board considers that at least fundamental training and knowledge of both branches of this united specialty are essential regardless of the fact that a candidate may in his practice major in one or the other branch.

Applications for the 1947 examinations cannot be accepted after November 1, 1946. For further information and application blanks address Paul Titus, M.D., Secretary, 1015 Highland Building, Pittsburgh 6, Pennsylvania.

NEWS and VIEWS

Dr. H. C. Stewart, Franklin, Tenn., is the new health commissioner of Lincoln. He succeeds Dr. L. L. Fatherree who has become health commissioner in Omaha. Dr. Stewart is a native of Nebraska, and a graduate of the University of Nebraska College of Medicine in 1920. He has been in public health work for many years.

Ninety medical specialists recently completed the organization of a society to promote cooperation between army and civilian doctors.

Called the Society of United States Medical Consultants in World War II, the organization listed as members high ranking medical officers, now in civilian life, who were consultants in the office of the Surgeon General during the war.

Dr. William Bauer of Boston was elected president.

Dr. C. M. Wilhelmj announces the following appointments to the staff of Creighton University Medical School: Drs. F. J. Austin, department of health; Frank Barta, neuropsychiatry; Chester H. Farrell, neuropsychiatry; Miles E. Foster, pathology; Maurice E. Lev, pathology; H. H. McCarthy, surgery; F. C. Mackenbrock, medicine; Kenneth Muehlig, neuropsychiatry; Harold Neu, medicine; William O'Gorman, neuropsychiatry; Thomas E. Smith, ear, nose, throat; Jack Hayes, medicine; Maurice Stoner, medicine; Joseph Borghoff, surgery, and Maurice W. Quigley, anatomy.

For the second consecutive month the number of World War II patients exceeds those of World War I, Dr. H. A. Scott, manager of Lincoln Veterans hospital reported November 7.

For the first time, World War II patients outnumbered World War I at the close of September, 160 to 122. At the close of October, World War II patients numbered 159 to 132 World War I veterans.

So far, Dr. Scott said, the hospital has been able to promptly accept all service-connected cases but at the close of October had a waiting list of 375 veterans seeking treatment for disabilities other than service-connected.

On November 4, there were 291 patients in the hospital of which 35 were receiving treatment for World War II disabilities and eight for World War I.

Interest in the control of heart disease is currently being enhanced by the efforts of many professional and lay groups. This attention to heart ailments has long been warranted. The public is becoming more acutely aware of cardiac hygiene than ever before—a growing interest that should be cultivated and guided with judgment as well as vigor.

During the past third of a century, the improvement in mortality from heart disease was most pronounced in the younger age groups and decreased progressively with advance in age. The death rate from diseases of the heart and arteries, corrected for the ageing of the population, dropped virtually 30 per cent between 1911-15 and 1940-44, according to experience among the Industrial policyholders of the Metropolitan Life Insurance Company. This reduction in mortality from the principal cardiovascular-renal diseases has been particularly marked among white females—37 per cent in the above-mentioned period. Among the males, the decrease in mortality, while not as marked as among the females, was 25 per cent, still a substantial reduction. This still leaves much to be desired in the field of early diagnosis and immediate initiation of adequate cardiac regimes in order to reduce to a minimum incapacity and mortality from these conditions. Concentration of effort must now be placed on teaching the public what is known about prevention, early recognition, and care of cardiac lesions.

In order to assist in the attainment of this goal, the Metropolitan Life Insurance Company is conducting a special campaign on heart disease during the fall and winter months. At that time, the Company's more than 20,000 field representatives, in cooperation with official and voluntary agencies, will reach the homes of millions of policyholders with a recently published pamphlet, YOUR HEART, developed in cooperation with the American Heart Association. A lay educational film on heart disease is also being prepared. Distribution will be made to physicians of a packet in which will be included material of special interest to doctors, and a scientific exhibit on heart disease, first shown at the A.M.A. meeting in San Francisco, is available for state and local professional meetings.

RESOLUTION

The following resolution was unanimously approved and passed at the Twenty-eighth National American Legion Convention, in San Francisco, October 4, 1946:

WHEREAS, Veterans who have served in the armed forces now have available to them hospital and medical care provided by the United States Government; and

WHEREAS, There are countless voluntary health insurance plans now being offered by the physicians and the insurance companies; and

WHEREAS, Proposed plans of compulsory health insurance would increase the tax burden and bring about regimentation of the medical profession; and

WHEREAS, All forms of compulsion are repugnant to our American way of life since our liberties and opportunities would be circumscribed;

NOW, THEREFORE, BE IT RESOLVED, That the National Assembly of the American Legion hereby expresses its opposition to compulsory health insurance.

OFFICE OF THE SURGEON GENERAL

ARMY ANNOUNCES NEW SEPARATION CRITERIA FOR MEDICAL OFFICERS

A new separation policy designed to speed the separation from service of Medical Department officers, with the exception of those in certain critical categories, will go into effect November 1, it was announced recently by the War Department.

The new separation criteria especially apply to Category V Medical Department officers—those who have requested relief from active duty at the earliest possible time — and includes those who are graduates of the Army Specialized Training Program with the prescribed length of service in active commissioned duty.

Provision is made for the discharge of Dental Corps officers upon completion of 24 months' service. The previous requirement for separation was 30 months' service.

Service requirements have been dropped for members of the Army Nurse Corps in Category V who under former provisions were required to serve for 14 months, in view of the fact that by November 1 no Category V nurses will remain in service.

No change is made in the criteria for non-specialist Medical Corps officers, who are required to complete 24 months' service, as they will be under the new policy. The same is true of Medical Department Dietitians and Physical Therapists, for whom the existing requirement of 24 months' service remains unchanged under the new directive.

Excepted from general provisions of the program are Medical Corps officers with primary or secondary classifications in certain military occupational specialties, and who are assigned to duties utilizing their specialty. Such officers are eligible for separation upon completion of 36 months' service. Release of such specialists, however, is subject to the right of the Surgeon General to retain by individual selection a relatively few critically needed specialists where this is essential to the proper care of patients. The scarce occupational specialty numbers are: 3101, 3105, 3106, 3107, 3112, 3125, 3126, 3128, 3129, 3130, 3139, 3150, 3152, 3153, 3180, 3306, and 3325.

It was also pointed out that Medical Department officers on duty in general hospitals closing out before January 1, 1947, may be retained on duty until the closing date for that hospital, but in any event must be released to begin terminal leave not later than December 31 of this year. Medical Department officers on duty in regional station hospitals may be retained on duty beyond date of eligibility, but must be released to begin terminal leave not later than December 1.

One hundred and twenty-two outstanding experts in the Nation's medical profession and allied specialties were appointed civilian consultants to the Secretary of War through the Surgeon General, the War Department announced recently.

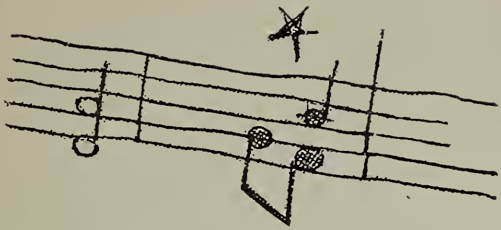
This brings the total of civilian consultants available to the Army Medical Department to 327. The majority of consultants named today and in previous announcements are former officers in the Army Medical Department. Recognized as authorities in their fields, they will aid the Army in maintaining the healthiest Army in the world.

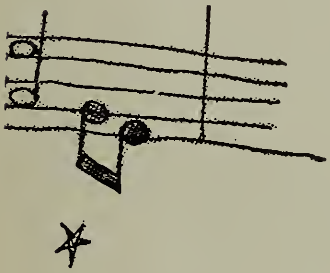
Major General Norman T. Kirk, the Surgeon General, said that more consultants will be added so the American soldier will continue to get the best medical care available both from military and civilian medical men. In addition to making available the best specialists in this country, the Army Medical Department is sending medical officers to civilian medical schools and hospitals for advanced graduate training, schooling enlisted technicians to aid medical scientists and recalling former medical department officers to active duty to insure the well-being of some 70,000 patients in Army hospitals throughout the world.

ARMY TRAINED 115,000 MEDICAL TECHNICIANS DURING WAR

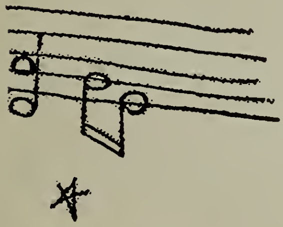
In the first figures made public on the number of technicians trained during the war, Major General Normán T. Kirk, the Surgeon General, reported that 114,997 enlisted men qualified as technicians from July, 1939, to June, 1946.

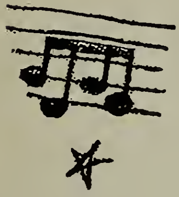
Twelve general hospitals and medical centers of the Army offered courses for enlisted technicians in x-ray, veterinary medicine, medicine, surgery, dentistry, laboratory, pharmacy, meat and dairy inspection, orthopedic machinery, medical equipment maintenance and sanitation. For those technicians who showed special progress, advanced courses were given.

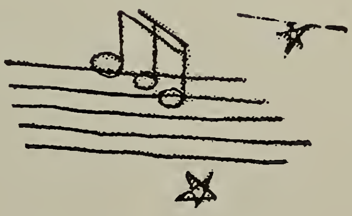




There's something in the atmosphere
At Christmastime,
That warms the heart with happy cheer
At Christmastime,
But warmest is the friendly glow
That friendly words and smiles bestow
At Christmastime.







Merry
Christmas!

Happy New Year!

U. S. PUBLIC HEALTH SERVICE

A Memorial Laboratory for the study of infectious diseases, the eighth building of the National Institute of Health at Bethesda, Md., was officially dedicated on October 27 at a ceremony attended by medical and civilian dignitaries of the United States, Russia, and China.

Entrance of the U. S. Public Health Service into the nuclear research program at Clinton Laboratories, operated by the Monsanto Chemical Company, and the organization of a new Biological Research Division as a cooperative undertaking with the National Institute of Health was announced. The announcement, made by the National Institute of Health and the Monsanto Chemical Company, was approved by the Manhattan District.

The program will include extensive research into the effect of nuclear radiations upon living cells and to determine the maximum safe exposure for workers in this field.

New methods of attack on gastric cancer will be outlined at a conference scheduled to be held December 5 and 6 at the Billings Hospital, University of Chicago, Dr. Thomas Parran, Surgeon General of the U. S. Public Health Service, has announced.

Arranged by the Gastric Cancer Committee of the National Advisory Cancer Council, this will be the third large conference on gastric cancer to be sponsored by the Council. The first one was held in 1940 at the National Cancer Institute of the National Institute of Health, research division of the U. S. Public Health Service. As a result of these previous conferences, research departments of a number of schools of medicine and hospitals have taken a greatly increased interest in the gastric cancer problem; and it is expected that the new information presented at the forthcoming meeting will make possible wider expansion of the program.

The Council is placing particular stress on cancer of the gastro-intestinal tract which accounts for 45 per cent of the total cancer deaths in this country.

Fellowships leading to a Master's Degree in Public Health in the field of Health Education are being offered to any qualified United States citizen between the ages of 22 and 40, according to a statement released today by the United States Public Health Service, Federal Security Agency. Tuition, travel expenses for field training and a stipend of $100 a month will be provided out of funds furnished by the National Foundation for Infantile Paralysis.

Candidates must hold a bachelor's degree from a recognized college or university and must be able to meet the entrance requirements of the accredited school of public health of their choice. In addition to the degree, courses in the biological sciences, sociology, and education may be required. Training in public speaking, journalism, psychology, and work in public health or a related field are considered desirable qualifications.

The year's training, which begins with the 1947 fall term, consists of eight or nine months academic work including: public health administration, epidemiology, public health and school education, problems in health education, community organization, and information techniques; and three months of supervised field experience in community health education activities.

Application blanks may be obtained by writing the Surgeon General, United States Public Health Service, Washington 25, D. C., and must be filed prior to March 15, 1947.

Veterans are encouraged to apply and will be paid the difference between their subsistence allowance under the G. I. Bill of Rights and the monthly stipend of $100. Employees of local and state health departments are not eligible since Federal grants-in-aid are already available for such training purposes.

NEBRASKA STATE DEPARTMENT OF HEALTH, PRELIMINARY REPORT ON THE HOSPITAL SURVEY

The Hill-Burton Bill previously known as S-191 has now become Public Law 725, by act of Congress and signature of the President. The purpose of this title is to assist the several states—"(a) to inventory their existing hospitals, to survey the need for the construction of hospitals, and to develop programs for the construction of such public and other non-profit hospitals as will, in conjunction with existing facilities, afford the necessary physical facilities for furnishing adequate hospital, clinic, and similar services to all their people; and (b) to construct public and other non-profit hospitals in accordance with such programs."

The objectives with which we began our work in June of this year were:

1. To study present hospital and public health center facilities and personnel in Nebraska.

2. To study population, economic, geographic and other factors bearing upon the need for hospital services.

3. To determine the hospital needs of Nebraska and to draft a plan which would provide an adequate system of coordinating hospital and public health facilities for all the people of the state.

We are now nearing the completion of our first objective **only**. That is, an inventory of our existing hospitals. Schedules of Information were sent to the 124 hospitals and 35 maternity homes discovered to be furnishing bed care to the sick within the state. This number did not include those hospitals under the control of the State and Federal Government, with the exception of the University Hospital in Omaha. The long form schedules were sent to those institutions of over 25 beds and the short form to those under 25 beds including maternity homes.

There were 44 long forms, 85 short forms from hospitals, and 32 maternity homes. There have been received 127 reports. Of the 34 reports outstanding, the schedules have been reviewed with the responsible party and all but 7 or 8 have a reasonable assurance of being received. Of the 7 or 8 which probably will not be received, the reasons are chiefly lack of interest, antagonism to governmental interference in "so-called" personal affairs. Two or three have not been in operation sufficiently long to render a report.

A number of the small maternity and hospital homes tend to open and close at will. A number of the outstanding schedules yet to be received are the long forms from larger hospitals which have had to vie with summer vacations of key personnel for attention. Also financial statements are a reason for delay. The schedules, as soon as requested by the Commission on Hospital Care or by the division of the American Hospital Associations which is assuming that function, will be forwarded to Chicago for compiling into a series of charts so that the results of this inventory can be used as a part of the material to determine the needs for hospitals both within the state as a whole and for any given community or area of the state contemplating hospital projects and as a means of devising an integrated plan or system of hospitals within the state.

There is also necessary a survey or study of the population, social, economic, geographic and other factors such as communications and roads which, along with hospital data, will be used to determine the needs for hospitals both within the state as a whole or within any given area. This study and compiling of data is well under way, but since it is intended to be exhaustive, much is yet to be done and it is estimated that from four to ten months will be required to complete all that will be required.

The survey and planning which is part of Public Law 725 is conveniently divided into three parts:

First Inventory. A more or less nose counting process to determine where, how much, and if possible the quality or adequacy of those facilities now present in the state.

Second. The study phase, the compiling of all or any useful material into a usable form and from it determine what the needs are of the state and various areas within the state.

Third. The devising of a plan of construction of hospitals, including new construction, additions to already existing facilities, remodeling of existing hospitals and construction of health units so that the need for medical and health services can be within the reach of all the people of the state. It is desirable and necessary for efficiency and economy, not only to the operators of hospital and medical services, but to the users of these services that a relationship be established and maintained between hospitals of the various areas and types of areas within the state and with adjoining states.

There are in the state two metropolitan areas, Lincoln and Omaha. These two cities situated only 60 miles apart contain 15 of the general hospitals in the state, and all but three of the general hospitals over 100 beds. These fifteen hospitals contain 2,558 beds out of the total of 5,065 beds in the state. Also there are within these areas, 638 of the 1,442 doctors and 1,303 of the 2,571 nurses registered in the state.

There are 14 urban centers of cities of over 5,000 population. These urban centers contain 26 general hospitals with a total of 1,365 hospital beds, 341 doctors and 571 registered nurses. This leaves for the remainder of the state 81 general hospitals with a total of 1,142 hospital beds, an average of 15 beds per hospital to take care of one-half of the population of the state. The remainder of the state, which is our rural farm and nonfarm population, has only 463 doctors and 597 registered nurses.

These facts and figures tend to point out that the areas of greatest need are in our rural population.

For the purpose of planning a system of hospitals which will furnish adequate hospital services to all the people, the state is divided into base areas, which are metropolitan areas serving the state. These areas, medically speaking, are the centers of scientific research, teaching and diagnosis and treatment of conditions requiring highly-trained specialists. These areas are at Omaha and Denver, Colorado, and already exist and function as such. The function of base areas are such services as: cancer clinics, psychiatric services, heart clinics, major surgery including orthopedic surgery, internal medicine, obstetrics, pediatrics, communicable diseases and diagnostic and treatment centers for venereal diseases, tuberculosis, poliomyelitis; teaching centers for residents, internes, nurses, etc.; scientific laboratories in x-ray, pathology, bacteriology and chemistry; physiotherapy and rehabilitation, dentistry, eye-ear-nose and throat and dietetics.

District medical centers are based on normal trade areas surrounding the urban centers in which, in most instances, there already exist fairly adequate hospital facilities. The hospitals in these areas are general hospitals the size of which depends on the size and population of the area. In denser areas such as the eastern part of the state, the hospital areas tend to be smaller in area and the hospitals larger in capacity; whereas in western Nebraska, the areas are larger in area and hospitals smaller in capacity. These hospitals should be fairly complete in services rendered. They furnish major surgery, obstetrics, internal medicine, communicable diseases, pediatrics, eye-ear-nose-throat, dentistry, physiotherapy, laboratory and the teaching of nurses, internes and dietitians.

Within the district area are varying numbers of rural towns of 2,500 to 5,000 population, some of which already maintain and support hospitals and are capable of supporting hospitals of from 25 to 50 beds. This is the rural hospital area. These facilities should augment the District Hospital, act as a branch facility of the District Hospital and serve the functions of furnishing efficient and convenient hospital services to local people for conditions within the scope of general practitioners of medicine serving the area. Throughout the United States and in Nebraska 90 per cent of all medical specialists are located in urban and metropolitan centers and there is no evidence that this trend will change. The function of the rural hospital is to furnish diagnosis and treatment of usual internal medical conditions, normal obstetrics, uncomplicated ear-nose and throat conditions, selective surgery, laboratory services including x-ray and bacteriology for cases handled locally, and administrative public health offices.

In areas surrounding the rural hospital centers are smaller towns and areas in which, for various reasons, it is not logical to maintain or support a hospital. It is anticipated that such an area could maintain a rural medical and health center. Such a center is a combination of rural health center and offices of local doctors and dentists in a facility which also furnishes from 5 to 20 hospital beds for the care of normal obstetrics, medical and surgical emergencies until they can safely be transported to the rural or district hospital, laboratory services for both local practitioners and public health personnel. This type of rural medical health center stresses preventive services, making such services available to rural people and at the same time providing an attractive workshop for the local doctor and dentist to efficiently serve rural people. The lack of such facility has been one of the outstanding reasons why doctors have left small rural towns and new doctors are not attracted to these towns.

The task remains for the Hospital Survey Committee to consider the state in reasonable and logical hospital districts and to study each individual district with the people of such district participating to determine **where, what type,** and **how much** hospital, health, and medical services need to be developed to serve all the people within the area and within the state.

—D. M. ALDERSON, M.D., Director,
Nebraska Hospital Survey,
Nebraska State Health Department.

NUMBER OF HOSPITALS, BEDS, AVERAGE BEDS PER HOSPITAL AND BED FOR 1,000 POPULATION FOR URBAN AREAS, NEBRASKA, 1946

State and Cities	Number of Hospitals	Beds	Average Bed per Hospital	Bed per 1,000 Pop.	Number of Physicians	Number of Nurses	Population City	Population County
NEBRASKA	121	5065	42	3.8	1442	2571	1,315,834	
Omaha	11	1954	177	7.9	443	905	223,844	247,562
Lincoln	4	604	151	6.0	195	398	81,984	100,585
	15	2558		7.3	638	1303		348,147
10,000-50,000								
Beatrice	2	81	40	2.7	28	43	10,883	29,588
Fremont	1	55	55	2.3	33	57	11,862	23,799
Grand Island	2	176	88	6.4	29	93	19,130	27,532
Hastings	1	90	90	3.7	30	91	15,145	24,576
Norfolk	3	106	35	4.4	37	49	10,490	24,269
North Platte	2	105	52	4.2	25	38	12,429	25,425
Scottsbluff	2	110	55	3.2	33	70	12,057	33,917
	13	723	55	3.8	215	441	91,996	189,106
5,000-10,000								
Alliance	1	111	111	10.4	12	40	6,253	10,736
Columbus	2	180	90	8.9	17	38	7,632	20,191
Fairbury	2	41	20	2.6	15	11	6,304	15,532
Falls City	1	35	35	1.8	20	10	6,146	19,178
Kearney	2	75	37	3.2	24	43	9,643	23,655
McCook	1	50	50	4.2	11	26	6,212	11,951
Nebraska City	2	64	32	3.4	14	34	7,339	18,994
York	1	50	50	4.8	13	28	5,383	14,874
	13	642	50	4.8	126	230	61,124	135,111
	39	3927		5.9	979	1974		672,364
Remainder of State	81	1142	15.5	1.8	463	597		643,470

FOR SALE: Westinghouse shockproof portable x-ray unit. H. S. Eklund, M.D., Osceola, Nebr.

REPORT OF EXECUTIVE DIRECTOR OF NEBRASKA MEDICAL SERVICE

NEBRASKA MEDICAL SERVICE CASH RECEIPTS AND DISBURSEMENTS

October 31, 1946

Cash on hand October 1, 1946		$40,203.11
Receipts:		
From dues	$13,846.25	
From enrollment fees	515.00	
Taxes deducted from salaries	4.30	14,365.55
		$54,568.66
Disbursements:		
Administrative expense	$ 2,070.77	
Claims paid	5,720.50	
Salary, Executive Director	150.00	
Hospital records	6.00	
Secretary's fee	25.00	
Advertising	25.00	
Printing and stationery	156.31	
Attorney	50.00	
Refunds	90.25	
Exchange	.10	
Home office travel and expense	76.20	
Collection expense	.13	
Taxes paid	17.40	
Dues	13.75	
Medical Adviser	50.00	
Safety deposit box	6.00	
Bates numbering machine	22.00	8,479.41
Cash on hand, October 31, 1946		$46,089.25
Bank Balance, October 31, 1946:		
Packers National Bank, Omaha		$45,077.25
First National Bank, Omaha		1,012.00
		$46,089.25

NEBRASKA MEDICAL SERVICE BALANCE SHEET

October 31, 1946

Assets:			
Cash in bank		$46,089.25	
Premiums in process of collection		5,647.91	
U. S. Bonds (cost plus accrued interest)		15,035.55	
Prepaid insurance premiums		-------	66,772.71
Liabilities:			
Accounts payable, Blue Cross		$ 2,211.66	
Accounts payable, monthly invoices		524.34	
Accrued payroll taxes		5.80	
Claims payable		1,600.00	
Accrued audit expense		250.00	
Unearned premiums		18,407.92	
		$22,999.72	
Subscribers 4% Surplus Notes	$19,450.00		
Net income to date	24,322.99		
		43,772.99	
			$66,772.71

NEBRASKA MEDICAL SERVICE INCOME AND EXPENSES

October 31, 1946

	October 1946	10 Months to Date
Income:		
From dues	$11,772.00	$75,631.50
From enrollment fees	515.00	5,446.00
	$12,287.00	$81,077.50
Expenses:		
Claims	5,320.50	38,472.50
Salary, Executive Director	150.00	1,500.00
Legal	50.00	470.00
Auditing	25.00	250.00
Advertising	224.80	1,205.54
Printing	304.04	2,671.63
Stationery	5.35	105.19
Insurance	-------	162.92
Administrative expense	2,211.66	14,493.50
Home office travel and expense	76.20	551.65
Secretary's fees	25.00	250.00
Collection expense	.13	16.65
Taxes and licenses	1.50	51.00
Miscellaneous	12.60	56.65
Postage	-------	183.45
Dues	13.75	123.00
Medical Adviser	50.00	440.00
Furniture and fixtures	-------	22.00
	$ 8,459.83	$61,025.68
Net Gain	$ 3,827.17	$20,051.82

MEMBERSHIP SUMMARY—October, 1946

	Subscribers	Dependents	Total
1. Membership—October 1, 1946	7,730	10,871	18,601
Additions	687	972	1,659
Cancellations	133	110	243
Membership—November 1, 1946	8,284	11,733	20,017
2. Number of groups now enrolled			510
3. Number of groups added during October			40

4. Members enrolled by salesmen:

M. W. Ashton (outstate)	183
S. M. Hall (outstate)	76
W. V. Jones (Omaha)	44
B. R. Lohnes (Omaha)	62
G. S. Malone (outstate)	197
C. H. Smith (Omaha)	57
Office	68
	687

OCTOBER ENROLLMENT BY COMMUNITIES

OMAHA—9 groups, 186 members: Eastern Lacquer Service; Evelyn Coats Beauty Shop; Goldware Company, Inc.; Henry Distributing Company; Legionnaire Club; Marchant Calculating Machine Co.; Omar Retail Union; Pendleton Woolen Mills; University of Omaha.

GRAND ISLAND—3 groups, 42 members: Hall County Assistance Administration; The Geer Company; Shavers Market.

OGALLALA—5 groups, 18 members: Dr. Harvey's Office Group; Button Garage; Keith County Courthouse; Ogallala Hardware; Scott Motor Company.

AURORA—1 group, 20 members: Farmers Union Beaver Local No. 610.

SEWARD—1 group, 5 members: Seward Hospital.

LOVEWELL—1 group, 16 members: Lovewell Community.

RUSKIN—1 group, 10 members: Ruskin Community.

LINCOLN—6 groups, 177 members: American Stores; Cushman Motor Scooter Sales; Game Forestration & Park Commission; Gulley Pharmacy; Harvey Brothers Clothing Company; Holmes Grocery.

NORTH PLATTE—7 groups, 54 members: Carsons Barber Shop & Shoe Service; Crawford Electric Company; Dan-Carns Contractor; Drs. Kerr & Waltemath; Johnny's Cafe; Mendenhalls; Shrake Body Shop.

SCOTTSBLUFF—2 groups, 50 members: Dutch Maid Bakery; Tyrrell Chevrolet Company.

SIDNEY—2 groups, 41 members: Greenlees Incorporated; Hazel's Cafe.

SUTHERLAND—1 group, 4 members: The Holmstedt Company.

BEATRICE—1 group, 7 members: Glass Motor Company.

FALLS CITY—14 members.

FREMONT—6 members.

COLUMBUS—1 member.

HASTINGS—18 members.

NEBRASKA CITY—18 members.

NEBRASKA MEDICAL SERVICE CLAIM REPORT

October 31, 1946

Number of claims paid	118
Number of services rendered	136
Females	84
Males	34
Subscribers	50
Dependents	68

Type of Service	Number	Amt. Paid
Anesthesia	5	$ 35.00
Appendectomies	15	1,500.00
Eye	4	40.00
Gall Bladders	2	275.00
General Surgery	11	685.00
Gynecology	11	730.00
Hemorrhoids	3	105.00
Herniotomies	--	-------
Minor Surgery	17	115.00
Nose and Throat	2	55.00
Obstetrics	6	300.00
Orthopedics	16	631.00
Pathology	1	5.00
Radiation Therapy	1	100.00
Tonsillectomies	19	665.00
Transfusions	1	20.00
Urology	2	335.00
X-rays	19	162.50
Medical	1	12.00
	136	$ 5,770.50

Amount of claims in process of settlement $1,600.00

BOOK RECEIVED

Hygiene: A textbook for college students on Physical and Mental Health from Personal and Public Aspects, by Florence L. Meredith, B.Sc., M.D. Fellow of the Am. Medical, Am. Public Health and Am. Psychiatric Assns.; Professor of Hygiene and Public Health, Tufts College. Fourth Edition, 838 pages including index; illustrated. $4.00. The Blakiston Co., Philadelphia, Toronto.

DEATHS

Charles C. Snowden, Davenport, Nebr. Born in Pennsylvania in 1855. Came to Nebraska in the early sixties. He attended school in the state and was a member of the first class of the University of Nebraska in Lincoln. He graduated from Jefferson Medical College in Philadelphia in 1882, and soon thereafter located in Davenport where he remained until his death, November 1, 1946. Dr. Snowden will be remembered to many of our readers as an energetic man with a great interest in organized medicine. He missed few meetings of the annual assemblies. The doctor was past president of the Thayer County Medical Society and the Seventh Councilor District Society. There are no immediate survivors.

John D. England, Axtell. Retired. Born in 1858. Graduated from New York University Medical College in 1887. He came to Nebraska in 1891, practiced in Axtell until 1917 when he retired to become president of the Farmers and Merchants Bank, a position he held until his death November 1, 1946. Survivors are one son and two grandchildren.

SOCIETIES

Secretaries of county and district societies are requested to send in the minutes of their meetings to The Editor, Mezzanine No. 3, Medical Arts Building, Omaha.

A special meeting of the **Phelps County Medical** Society was held October 18, 1946, at which time Dr. H. S. Andrews, councilor for the tenth district, presented some facts of interest to all physicians in Nebraska.

Dr. H. E. Eggers of Omaha, Nebraska, gave a very interesting talk on cancer that was instructive and beneficial.

We also were fortunate in having as special guests, Dr. Harold C. Lueth and Ruben Saxon of Omaha; Dr. W. S. Petty and Dr. R. H. Loder of Lincoln, and a number of other guests from surrounding towns. There were about 30 present.

Adams County Medical Society met at Hastings State Hospital, November 6. The meeting was devoted to a discussion of myaesthenia gravis by Dr. Willard C. Roley, assistant superintendent of the hospital.

The Sixth Councilor District Medical Society met October 15 at the McCloud Hotel in York. Dr. Earle G. Johnson, President of the Nebraska State Medical Association discussed trends in socialized medicine. Dr. Wayne Hull of Omaha talked on Allergy.

The Six County Medical Society met in the Hotel Waldorf, Norfolk, November 7. The program was as follows: "Diagnosis and Management of Colon Lesions," by Dr. R. Russell Best, and "Coronary Artery Disease," by Dr. Chester Thompson. Both speakers are from Omaha.

HUMAN INTEREST TALES

Communications bearing human appeal are solicited. They should be addressed to The Editor, Nebraska State Medical Journal, Mezzanine No. 3, Medical Arts Building, Omaha.

Dr. Kenneth Baker, formerly of Holdrege, has located at El Paso, Texas.

Dr. Herman Johnson, Omaha, was elected president of the Clinical Orthopedic Society.

Dr. Frank W. Protzman, recently discharged from the Naval Medical Reserve, has located at Gibbon.

Dr. Austin E. Mutz has located in Spaulding. Dr. Mutz will be associated with Drs. Sullivan and Giever.

Dr. Charles McMartin, Omaha, was elected president of the American Urological Association in November.

Dr. Franklin G. Osberg of Wausa, recently discharged from the U. S. Army Medical Corps, has located in Laurel.

Dr. Earl C. Sage, Omaha, was recently elected president of the Central Association of Obstetricians and Gynecologists.

Dr. J. E. M. Thomson, Lincoln, delivered a series of lectures at the annual fall clinic of the Oklahoma City Clinical Society in October.

President Earle G. Johnson, Grand Island, attended the American Association of Railroad Surgeons meeting in Chicago, October 29-31.

A new doctor in Cozad is C. Hranac, graduate of the University of Nebraska Medical College, and recently discharged from the Marine Corps.

Dr. W. M. Hollander has resigned his position at the Hastings State Hospital to join the staff of the Mt. Pleasant State Hospital in Iowa.

Dr. C. H. Arnold, Lincoln, is going to China for one year to be instructor in the west China Union University. Dr. Arnold served in both World Wars.

Dr. John A. McMillan, Hastings, now serving in the Army Medical Corps, was recently promoted to captain. He is at present serving with the 4th General Hospital in Manila.

Dr. Emmett C. Rankin, a graduate of the University of Nebraska Medical College in 1943, and recently discharged from the USNR has joined the staff of the Kearney Hospital for tuberculosis.

Dr. Harold Lueth, dean of the College of Medicine of the University of Nebraska, addressed the Concord Club in Omaha in October. Dr. Lueth stressed the importance of scientific research to the community.

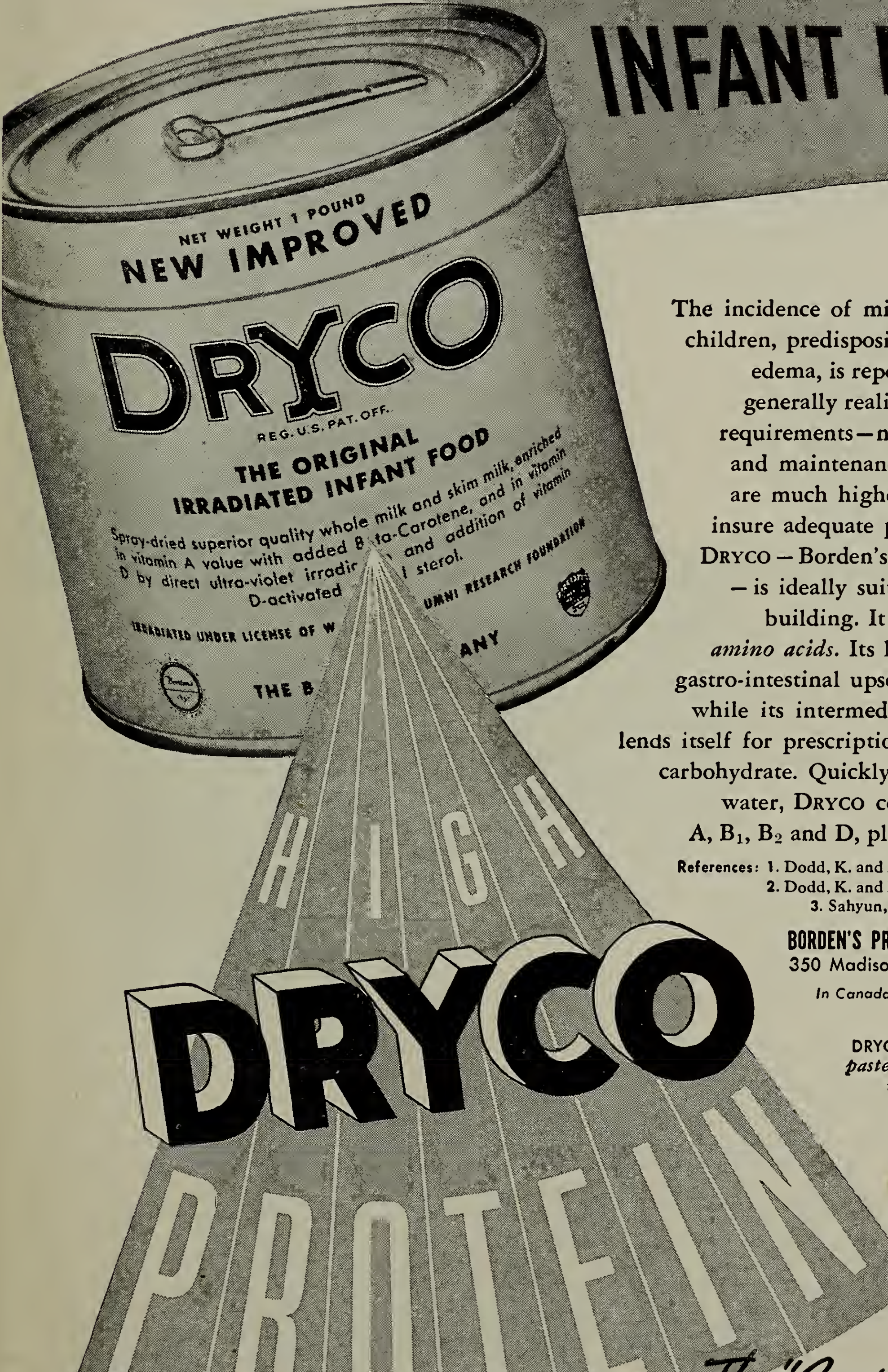
Dr. Roy Fouts of Omaha was one of the principal speakers at the 34th annual meeting of the Associated Industries of Nebraska which met in Lincoln, October 25. Dr. Fouts' subject was "The Philosophy of National Regimentation."

Dr. H. E. Eggers, professor of pathology at the University of Nebraska College of Medicine, plans to retire in 1947 to devote his time in working for the American Cancer Society. He will administer the educational program of the society in Nebraska.

Dr. J. E. M. Thomson addressed the Kiwanis Club of Lincoln on his observations in Czechoslo-

(Continued on p. xxxvi)

THE HIGH-PROTEIN INFANT FOOD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References: 1. Dodd, K. and Minot, A. S.: *J. Pediat.,* 8:442, 1936.
2. Dodd, K. and Minot, A. S.: *J. Pediat.,* 8:452, 1936.
3. Sahyun, M.: *Am. J. Dig. Dis.,* 13:59, 1946.

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PATIENTS WITH HEART TROUBLE CAN STILL LIVE NORMAL LIVES

A Philadelphia physician states that many patients who have serious complications of the heart can be reassured and allowed to live normal lives, according to the October 19 issue of The Journal of the American Medical Association.

William D. Stroud, M.D., who is on the board of directors of the American Heart Association, points out that there are "many murmurs, especially in the pulmonic area, which are absolutely of no importance from the standpoint of circulatory efficiency or length of life. In fact, many children with definite valvular damage live the full span of life and others do not develop circulatory insufficiency until the third, fourth or fifth decade. Certainly their lives can be much happier if their physical activities are unrestricted, and I doubt whether the normal physical activity of childhood plays any part in the progress of the pathologic lesion."

Medicine can aid patients with heart trouble to lead practically normal lives, according to Dr. Stroud. "Most people with coronary insufficiency know the things that bring on pain, such as walking after meals or in cold weather against the wind," he states. "If it is necessary for these persons to make such effort, it is perfectly possible for them to ward off an attack by dilating the coronary vessels with a tablet of glyceryl trinitrate before making such an effort."

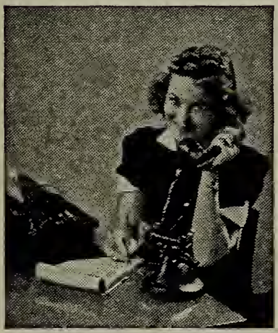
Dr. Stroud is of the opinion that patients with heart trouble should be permitted to smoke and drink.

"Most people who smoke know whether or not they are sensitive to nicotine," he said. "If a man is not sensitive to nicotine, I believe it is perfectly safe for him to smoke. However, sensitive or not, in the presence of angina of effort or a healed coronary occlusion if a person is having substernal pain I believe eliminating tobacco will tend to lessen the frequency of attacks of pain.

"Many physicians advise patients with hypertension or coronary artery disease or any form of heart disease not to drink. For myself I see no reason why patients with these conditions should not drink in moderation. Many patients with angina of effort secure as much relief from brandy or whiskey as they do from glyceryl trinitrate and I can see no reason why they should be deprived of the pleasure of drinking unless there is some evidence that alcohol is injurious."

The author holds out further hope for the heart disease patient by concluding in this optimistic tone: "I feel that the average patient with a healed coronary occlusion can return to a sedentary occupation part time in about three months. Although it is debatable, because of the possibility of further occlusions, I believe it is safe to allow such patients to drive a car three months or so after their acute episode. Also if they do not have angina of effort three or four months after their original attack any mild form of exercise such as golf or swimming in warm water seems indicated, if desired. It is my feeling that too many such patients are made total invalids unnecessarily. In fact, it is my experience that after adequate collateral circulation has developed it really doesn't seem to matter what activities these persons carry on within reason from the standpoint of developing further coronary occlusions. Certainly a patient is a happier and more useful member of his community if he can lead an approximately normal life."

why Dexedrine is so beneficial in menstrual dysfunction



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HUMAN INTEREST TALES

(Continued from p. 512)

vakia. Dr. Thomson was one of a group of fourteen physicians from this country who recently returned from Czechoslovakia after spending three months in that country.

South Sioux City, Nebraska, has a new doctor. He is Dr. B. Schnee, a graduate of St. Andrews University in England. Dr. Schnee was in the army for three and one-half years serving with the Fourth and Sixth armored divisions in France. He formerly practiced in Moorehead, Iowa.

Dr. Charles H. Arnold of Lincoln, was elected vice president of the International College of Surgeons at its meeting in October in Detroit. Other members attending this meeting were Drs. T. L. Weekes of Nebraska City, J. A. Lanspa of Tecumseh, Earl Leininger and Dr. Brown of McCook, Dr. Joseph P. Swoboda, Omaha.

Condolences of the Journal go to Dr. J. Dewey Bisgard of Omaha on the recent loss of his father, and to Dr. Joseph Bixby of Geneva on the recent death of his mother, and to Dr. Charles Hustead of Falls City on the tragic death of his wife while enroute to Detroit to attend the meeting of International College of Surgeons.

Dr. Louis E. Moon, Omaha, attended a Council meeting of the American Protologic Society at Miami, Fla., in November. He also addressed the Proctological Section of the Southern Medical Society, which met at the same time, on the general treatment of ano-rectal diseases. Following this he took a five-day trip to Cuba.

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